THE POWER OF VOICE: THE LEARNING PATTERNS OF DEAF ADULTS

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements of
the Degree of
DOCTOR OF EDUCATION
December, 2003

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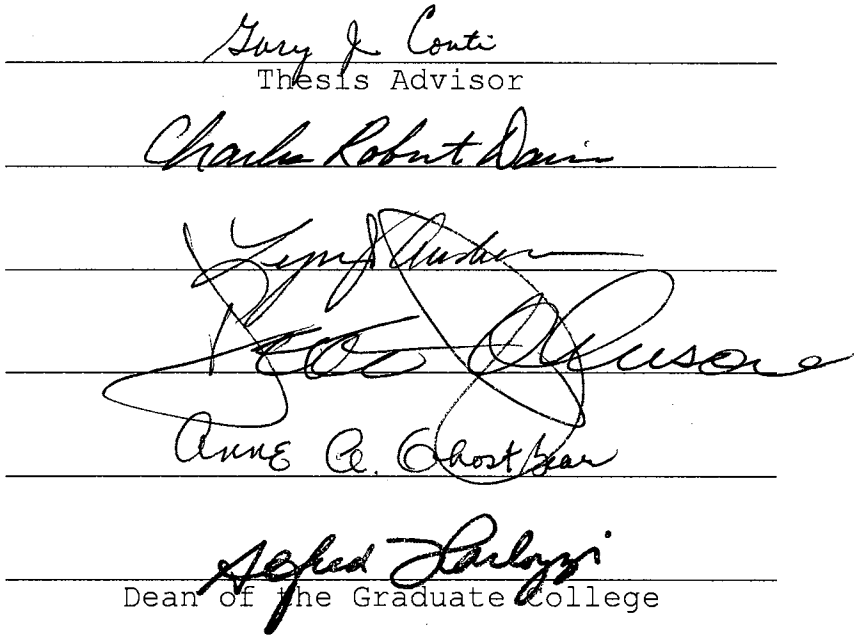
Thesis Approved:



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ACKNOWLEDGMENTS

I want to thank the participants in this study who were willing to share their stories that we all might learn from their experiences. Their willingness to be open and honest gave "voice" to others who had shared similar experiences in the Deaf-world.

I would also like to thank the three women who have influenced my life the most. First, I want to thank my mother, Wilma Longcrier. Even though she was only in my life for 16 short years, her kindness, compassion, love, and encouragement has shaped the person I have become. Next, I would like to thank my two daughters, Lori and Debi. My love for them has challenged me to continue growing as a lifelong learner.

I would like to thank my committee members who have given me much support along the journey. I especially would like to thank Dr. Gary Conti, Dr. Anne Ghost Bear, and Linda Conti for their support, encouragement, and inspiration.

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INTRODUCTION

Introduction

The deaf population is a definitive community. The individuals who make up this population are as unique and diverse as other minority groups. While most other minority groups at one time or another have voiced their opinions and objections loudly, it is difficult for the deaf population to be "heard." However, their needs and their "voices" are just as important as any other group. Even though many aspects of the deaf population mirror the plight of other minority groups, there is one aspect that separates them from other groups. This aspect is their difficulty in finding and maintaining employment.

A wide variety of salary levels exist in the United States. In today's society, many individuals are earning higher salaries than they ever dreamed possible and enjoying all the amenities of homes, cars, clothes, and vacations that accompany the higher salaries. However, others who are unemployed live in the depths of poverty and lack the most bare necessities. Many of these individuals who are unemployed have a disability. In fact, "Americans with disabilities are poorer and more likely to be unemployed than those without disabilities" (Executive Summary, 2001, p. 1).

Unemployment issues are a major concern of United States citizens. In 2001, the U.S. Department of Labor statistics indicated only a 5.4% unemployment rate for the United States (Muir, 2001). However, during this same time frame, the unemployment rate for Americans with disabilities hovered around 70% (Executive Summary, 2001). In the United States, 54 million, or 20% of the population, have a disability. Nearly 50% of these individuals have a severe disability which affects their ability to perform many basic functions of life (Executive summary, 2001).

Interviews of working age adults were conducted in 1994 and reported in the National Health Interview Survey of 1994-1995. The report indicated that 79% of adults without disabilities were employed at the time of the interview while only 37% of those with disabilities were employed (U.S. Dept. of Labor, 2001). For college graduates without disabilities, unemployment has been less than 1%; however, unemployment rates of college graduates with disabilities is currently 11% to 15% (Muir, 2001). As one can imagine, the statistics are even higher for those with a lesser education.

All groups of individuals with disabilities are impacted by unemployment. However, one subgroup of persons with disabilities appears to be unemployed at a higher rate than others. This group of individuals is deaf. As a

medical diagnosis, deafness means "lacking or deficient in the sense of hearing" (Merriam-Webster, 1999, p. 296). However, deafness also impacts the individual in emotional and socially isolating ways. Deafness separates a whole, unique group of individuals from the mainstream of society. These individuals make up what is known as the Deaf Community.

Deaf Community

Within the American culture, a subculture exists which consists of individuals who range from a moderate hearing loss to profoundly deaf. As with other cultures, this group of individuals has a shared language and a specific set of shared characteristics such as attitudes, values, meanings, perceptions, and beliefs (Santrock, 1995, Zastrow & Kirst-Ashman, 1997). In fact, this group of individuals describes themselves in American Sign Language as DEAF-World (Lane, Hoffmeister, & Bahan, 1996, p. ix). While the roots of Deaf culture began in America in pre-revolutionary times, the culture has only been recognized and accepted as such in the last several years. For example, in 1993, "Deaf: The New Ethnicity" was the cover line for a lead story in the *Atlantic Monthly* (Dolnick, 1993).

It is important to differentiate between the medical definition of deafness and the cultural definition of

Deafness. The condition of hearing loss refers to "deafness" while "Deafness" refers to a cultural identity (Humphries, Padden, & O'Rourke, 1994; Schein, 1989). The term Deaf does not denote a hearing loss as a disability, but instead it refers to a group that shares a common language and belongs to a minority culture (Lane, Hoffmeister, & Bahan, 1996, p. ix). In reality, a person can be deaf but not Deaf or Deaf but not deaf. Individuals who are Deaf identify with a particular culture. One of the unique aspects of the Deaf culture is the educational system and the changes that it has endured.

History of Deaf Education

Ancient philosophers felt that the spoken language divided humans from animals and those who were deaf were unteachable. At times, these individuals were kept out of sight or were deserted. However, there were attempts to educate those who were deaf starting in the 1700's with tutoring deaf children of royalty (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996; Schein, 1989).

Even though there had been attempts to teach children who were deaf, Abbe de l'Epee was the first man in recorded history to educate persons who were deaf by utilizing their own language (Lane, 1984; Lane, Hoffmeister & Bahan, 1996; Schein, 1989). l'Epee established the first school for deaf students in Paris in 1755, and then helped by instructing

others and encouraging them to establish schools for the deaf elsewhere (Lane, Hofmeister, & Bahan, 1996; Lane, 1984; Schein, 1989). One of l'Epee's students was Laurent Clerc, a deaf individual who came to America to help Thomas Gallaudet establish education for people who were deaf (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996).

Gallaudet became interested in educating deaf children because of a neighbor child who was deaf. This child was unable to attend school and struggled to understand the world around her. Gallaudet was intrigued with trying to reach this child and traveled to Europe to find a solution. At the Paris school, he learned the French manual language and met Clerc. Gallaudet and Clerc brought the French manual language to America and started the first school for deaf children in 1817 (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996). Later, this French manual language mixed with America's indigenous signs. This combination created American Sign Language (A.S.L.) (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996). This method of instruction continued to be used until after the Civil War (Lane, 1984; Hoffmeister, & Bahan, 1996).

After the Civil War, Samuel Gridley Howe and Horace Mann visited an oral school for deaf children in Germany. Although Howe and Mann were familiar with education, they were unfamiliar with deafness. Both men were impressed with

the oral method of teaching children who were deaf (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996). Howe later founded the first oral school for the deaf in America (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996).

In 1878, the first Congress of Milan convened and was attended mainly by French educators. Educators at this meeting decided that speech was necessary for teaching deaf students. This stance was once again reiterated a few years later at the Second Congress of Milan (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996). As a result, educators of children who were deaf focused on teaching their students to speak and lipread (Lane, 1984; Lane, Hoffmeister, & Bahan, 1996). The controversy between oralism and sign language had begun. Indeed, the controversy continues today. This controversy was one of the driving forces that led to the passage of laws relating to persons with disabilities. With the passage of Public Law 94-142, all students with disabilities were given the right to learn in the "least restrictive environment" (Lane, Hoffmeister, & Bahan, 1996; Ramsey, 1997; Schein, 1989). Once again, education for individuals who were deaf began to change.

Prior to the 1960s, most of the schools for the deaf were separate facilities. The schools were either residential schools or day schools in large cities. Residential schools were large, centrally located schools

that provided education from elementary through high school. However, after passage of Public Law 94-142, regular public schools started mainstreaming students who are deaf into either self-contained day classes or full inclusion into a hearing classroom (Lane, Hoffmeister, & Bahan, 1996, pp. 240-241). However, each classroom could have its own modality of teaching language to the children who were deaf.

Modes of Communication

Modes of communication for persons who are deaf may be very diverse. Communication can range from the visual language of using made-up home signs which only that family understands to utilizing the natural or native language which makes up American Sign Language (A.S.L.).

Communication could also take on the form of oral language which utilizes lipreading skills and learning to verbalize English. The children would use English syntax and English grammar. This type of instruction requires special speech training with speech therapists (Moores, 1987, pp. 9-21).

Manually Coded English systems (M.C.E.) include several signing systems, but these are not languages. These systems were invented by educators in order to:

> Represent words in English sentences using signs borrowed from A.S.L. combined with signs contrived to serve as translation equivalents for English function words and prefixes and suffixes. (Lane, & Hoffmeister, & Bahan, 1996, p. 270)

These systems include Signed English and Signing Exact English.

Total communication is a philosophy of using anything from pictures to spoken language to ASL to teach students who are deaf (Lane, Hoffmeister & Bahan, 1996). Total communication could include speech, lipreading, and signed languages. The choice of which communication modality to use depends on the severity of the hearing loss.

Physiological Characteristics of Deafness

A wide range of definitions of deafness exists. Deafness can be medically or physiologically defined to include almost any degree of hearing impairment or include only hearing losses in the speech frequencies of 82 decibels or more (Schein, 1968, p. 2). Whichever audiological stance is accepted, there is one common denominator present in all viewpoints. This common factor is that deafness is not a disease but is a functional disorder. Deafness is a result or consequence of disease, injury, or genetic disorder (p. 3).

While the etiology of the deafness is important, the age of onset of the deafness is also important. Prelingual deafness refers to an impairment that occurred before the development of speech and language. These individuals were either born with no functional hearing or their hearing loss developed at an age before language was acquired. In

contrast, postlingual deafness refers to the hearing loss that developed after speech and language were acquired. These individuals were born with normal hearing or near-normal hearing and only lost their hearing after acquiring a language (Gelfand, 1997, p. 172). Thus, "the earlier the onset and the longer the child is deprived of auditory stimulation, the more the loss will interfere with speech and language development and, hence, the more devastating its effect" (p. 172). This fact is important because the age at which people become deaf has a major impact on their language development and subsequent communication skills. This lag in language development affects their ability to learn at an early age.

Language Development

Children possess a window of opportunity to acquire a language. This window of opportunity occurs for children from the age of birth to five or six years of age. In fact, children between the ages of one and one-half and six learn an average of nine new words per day which is almost one new word per waking hour. In addition, research has shown that by the time children reach four years of age, their typical language abilities are close to adult speech competencies (Kalat, 1999, p. 301).

In whatever culture or country a child is born, that individual learns the language from parents or caregivers as

the dominant language is modeled. However, in most situations, deaf children are born to hearing parents who do not know any kind of manual or sign language. Since children who are deaf do not hear the words the parents or caregivers are using, they do not learn the language of their major culture. Many times a child who is deaf is not diagnosed until around one year of age when other babies start babbling and using understandable words. It is only then that parents are alerted that something may be terribly wrong. By the time the child is diagnosed with a hearing loss, fit with hearing aids, and given some kind of intervention, the child has lost several months or years in that narrow window of opportunity to acquire language.

After the child has been diagnosed as being deaf, there is still usually another lapse of several months while the parents go through the stages of grief and are ready to actually deal with the reality that the child may never be able to hear and communicate normally in their language. Denial on the part of the parents can last from a few months to even a few years while the deaf children flounder trying desperately to understand what is happening around them (Gustason, 1992; Hawkins, & Hawkins, 1991; Lane, Hoffmeister, & Bahan,1996).

After the parents face the reality of the child's deafness, they often vacillate between which way to have

their child educated. The controversy between having the child use oral communication or use sign language is still a heated debate in the educational and audiological arena. Indeed, parents are faced with a confusingly wide variety of choices. Will the child only learn to lipread the verbal language, or will the child be taught sign language? Will the child live at a residential school for the deaf or be educated in a public school?

Language is one of the first forms of behavior that people learn. When a person who is deaf starts attending school, much of the time is spent just trying to acquire a language. Many of the other skills and knowledge that individuals acquire are learned only through the medium of language (Burling, 1970, p. 1). In fact, language, reading, and speech are the main curriculum components for a child who is deaf (Furth, 1973, p. 47). It is through language that a person is able to learn virtually everything else. People are unable to learn math, reading, writing, and other subjects until there is a language established in order to understand the simplest concepts.

Not only is there cognitive importance to language learning, but language gives people an ability to have meaningful interaction with others. Isolation and lack of socialization skills are other obstacles people who are deaf encounter. In addition to the obvious obstacle of

communication, isolation is the greatest psychological danger to a person who is deaf (Furth, 1973, p. 43). These feelings of isolation lead a person who is deaf to feel as if they do not "belong" at school or at home. They are "different" from everyone else.

Many times individuals who are deaf have never seen another deaf person. The first time they meet other persons who are deaf is usually when they go to a residential deaf school (Furth, 1973, p. 43). The school for the deaf may be the first to introduce the deaf person to the Deaf culture.

Deaf Culture

To those who are a part of the Deaf culture, deafness does not imply that something has been taken away or that they are less of a person. On the contrary, deafness is viewed as a significant part of their self-identity (Furth, 1973, p. 48). "Deafness is not a problem that the afflicted person works to overcome, but a condition he accepts" (p. 49).

The residential schools for the deaf offer the individual a natural entrance into the Deaf community and psychosocial adjustment into the Deaf culture (Furth, 1973, p. 44). Many deaf adults are attached to their residential deaf school. In fact, many times the activities of the Deaf community revolve around the school for the deaf. Basketball and football games at the deaf school are heavily attended

by those who have previously graduated. There is a strong loyalty to the school, and many of the graduates continue to either work there or at least support it with their time by volunteering.

Deaf clubs are another feature of the Deaf culture and Deaf community. These clubs could be formal or informal gatherings depending on the local areas. Even if it is an informal gathering, most of the culturally Deaf individuals in the area know where and when the activities take place. This is a natural extension of the Deaf community. It is here the person who is deaf is able to gather informal information about the culture.

This informal information gathering or learning is important due to the fact that many deaf adults are unable to engage in other informal educational opportunities. Statistics indicate most individuals who graduate from a residential deaf school usually read at a fourth or fifth grade level (Garretson, 1995, p. 84). Therefore, they are unable to participate in many activities that others have the privilege of enjoying. For instance, most churches, libraries, and cultural institutions do not have interpreters on staff who are able to facilitate communication for the individuals who are deaf. Therefore, persons who are deaf are limited in their learning opportunities.

Regardless of their abilities, adults of most every culture have one thing in common, and that is they are motivated to learn in order to survive in life. An area of knowledge has evolved that deals with the adult's need or desire to learn. This area of knowledge is called adult learning.

Adult Learning

The notion of learning is synonymous with living. It "starts with birth and is terminated only when the heart and mind cease to function" (Kidd, 1973, p. 13). As individuals transition from childhood to adulthood, they start seeing a need to learn new skills in order to adapt to their changing and evolving roles. This motivation usually comes from within (Knowles, 1980, p. 55). This concept applies to adults of every culture. Adults utilize a unique combination of skills and strategies that enable them to adapt to their environment and learn to survive and thrive in society. There are adult learning concepts that help the adult become adept at this learning process. These concepts are (a) andragogy, (b) self-directed learning, (c) learning how to learn, (d) real-life learning, (e) transformational learning, and (f) learning strategies.

Andragogy

Andragogy is a fairly modern term that is used to reference adult learning as opposed to learning that is done

by children. There has been a paradigm shift in regard to adult education during the last few decades. In years gone by "The faith has been that if we simply pour enough knowledge into people: 1) they will turn out to be good people, and 2) they will know how to make use of their knowledge" (Knowles, 1980, p. 18). However, that is not necessarily the case. Since the world around us is changing so rapidly, it is necessary for people to apply their knowledge under changing conditions and to engage in self-directed learning over their lifetime (p. 19). This is especially true of adults who are deaf and who have spent most of their education in childhood learning a language and trying to navigate in a hearing world without the ability to hear.

Andragogy is "the art and science of helping adults learn, in contrast to pedagogy as the art and science of teaching children" (Knowles, 1980, p. 43). The difference is andragogy is proactive and a self-directed type of learning while pedagogy is passive and a reactive type of receiving information. Andragogy is based upon six assumptions which view the adult learner as: (1) a self-directed being, (2) having a vast reservoir of experience upon which to draw, (3) ready to learn in accordance with developmental social roles, (4) interested in immediately applying the information learned and problem-centered, (5)

needing to know the importance of learning the information, and (6) internally motivated (Knowles, 1980, 1998). The assumptions of angdragogy reflect a learner centered philosophy based upon the adults' abilities to be self-directed in their learning.

Self-Directed Learning

As individuals transition from childhood to adulthood, there is a deep psychological need to be independent of parental control as well as independent of control by teachers. This is a natural part of the maturing process. The adults want to be responsible for their own lives. They want to be more self-directed (Knowles, 1975, pp. 14-16).

In order to survive in life, individuals must learn this skill of self-directed learning. They are bombarded constantly with new experiences, new knowledge, and new problems. In fact, the very nature of the individuals' experiences become a rich resource as they encounter new experiences (Knowles, 1975, p. 20). As their life tasks evolve, they will be constantly called upon to reassess their learning needs in each new situation.

Learning How to Learn

Since learning is a lifelong process, individuals have a need to know how to learn in various situations and circumstances (Smith, 1982, p. 19). Learning is an intensely personal process, and it is apparent that the

individuals' prior learning and instruction impacts their learning in adulthood (p. 13).

Learning can be difficult to define because it is complex and involves not only the mind but the emotions. All individuals have experienced learning in that most all of human behavior is a result of learning. Even though individuals may not be able to explain learning, they know it when they experience it. There are three sub-concepts of the learning how to learn theory. The sub-concepts are (a) the learner's needs, (b) learning style, and (c) training. The learner's needs refers to the specific operational aspects of learning itself such as reading and writing. It also encompasses the processes of planning, evaluating, and communicating. Learning style includes those individual differences in regard to certain preferences or tendencies they may have (Smith, 1982, pp. 17-26). In the learning how to learn concept, training refers to "deliberate efforts to help people become better at learning and more successful in the educational arena" (p. 25). Education, whether formal or informal, continues throughout the entirety of life. Indeed, "the only man who is educated is the man who has learned how to learn; the man who has learned how to adapt and change" (Rogers, 1969, p. 104). These changes take place in real-life situations.

Real-Life Learning

Real-life learning differs from the traditional formal educational settings. The learning encountered with real life learning is directly related to individuals' life situations. Researchers have found at least nine areas in which learning in real life differs from academic settings. These are:

1. In real life learning, learners must learn to recognize that a problem exists whereas in academic settings, problems are given to the learner.
2. In real life learning, learners must accurately define the problem whereas in academic settings, the problems are defined for them.
3. In real life learning, problems are unstructured and may have more than one correct answer. In academic settings, problems are more structured and usually have one correct answer.
4. In academic settings, problems are taken out of context.
5. In real life learning, problems pertain to the learners lives.
6. In academic settings, learners are rarely challenged to disprove their beliefs and receive immediate feedback.
7. In real life learning, learners need to be able to understand others' viewpoints and often do not receive clear feedback.
8. In academic settings, learners are encouraged to work alone while in everyday life, individuals involve others in their problem solving. (Sternberg, 1990, pp. 39-40)

As individuals learn in these real life situations, cognitive and behavioral changes take place.

Transformational Learning

"The necessity to adapt to changing circumstances of life constitutes a powerful motivating force for learning"

(Cross, 1981, p. 144). As individuals encounter changes in their lives, they must learn to adapt to their new environment or situations. Many times these changes come due to the natural process of the life cycle. Some of these changes may include graduating from high school, first job, marriage, and having children. However, other changes may be sudden and traumatic such as illness, divorce, death of a spouse, or loss of a job. "Research on the life cycle and on life changes that 'trigger' learning shows that at some periods in life the motivation for learning is exceptionally high. Havighurst (1972) has called these 'teachable moments'" (p. 144). These "teachable moments" can bring about significant changes in individuals' perception of themselves and the world around them. Mezirow (1991, 1995) describes this life changing learning as transformative learning. Adults have developed certain beliefs through life experiences. However, when these beliefs or meaning schemes are challenged, it can change the adults' entire perspective. They are transformed by what has happened to them.

This is an especially important concept when considering individuals who are deaf. Many times individuals have been either isolated from other deaf children because they have attended a public school, or they have been around only children who are deaf at a state

institutional school for the deaf. Either way, after high school graduation, individuals must now enter a new world which many have no experience on which to draw. It is at this time that their own preferences come into play. They must learn how to approach problems with their own unique style.

Learning Strategies

Learning styles are fixed traits and innate methods that individuals utilize to process information. However, learning strategies are "more a matter of preference; they are developed throughout life and vary task by task" (Fellenz & Conti, 1993, p. 4). Much research has been conducted on looking at the various learning styles of adults.

> Smith's (1982) "Learning How to Learn" captured much of the thinking on the topic and advocated, among other things, that adults need to understand their particular learning styles. (p. 3)

For most individuals, recognizing their learning style may be enough. However, when the person is deaf and unable to learn auditorily, other traits need to be considered. In fact, "it may be easier to improve learning by focusing on learning strategies rather than on learning styles" (Conti & Fellenz, 1991a, p. 20).

Learning strategies are techniques that learners utilize as they approach specific learning tasks (Conti &

Kolody, 1999, p. 2). These strategies are learned behaviors that develop as individuals experience learning in various settings. Learning strategies are preferences of the learners in how they wish to attack a learning situation and they actually can vary by task (Fellenz & Conti, 1989, 1993).

Learning strategy research has led to the identification of three groups of learners. These three groups of learners are (1) Navigators, (2) Problem Solvers, and (3) Engagers. These groups differ in how they seek to accomplish a learning task.

> The Navigators and Problem Solvers initiate a learning task by looking externally to themselves at the utilization of resources that will help them accomplish the learning. Engagers, on the other hand, involve themselves in the reflective process of determining internally that they will enjoy the learning task enough to finish it. (Conti & Kolody, 1999, p. 18)

Even though individual differences appear within all three groups, it is helpful for learners to identify and understand their particular strategy as they approach a learning task. Assessing the Learning Strategies of AdultS (ATLAS) is an instrument that was developed in order to assess the learner's learning strategy preference in an easy to administer way with immediate feedback. This particular tool has been used extensively and research has indicated that it is a valid research instrument (Conti & Kolody,

1999, pp. 16-19).

Problem Statement

The world is made up of a multicultural pool of diverse people with diverse languages and diverse needs. However, each cultural group is important and their contributions are precious to the entire world. Whether those contributions are awards such as the Nobel Peace Prize or beautiful songs in their unique language, the world would not be what it is today without the combined talents and accomplishments of the people. Every person, every voice, every hand laboring together is significant. One way that people contribute to the world is through their work.

Individuals derive more from work than a paycheck. Work gives people self-esteem, self-identity, pride in their accomplishments, and a feeling of belonging and contributing to society at large. However, when individuals are deprived of the opportunity to work and obtain tangible as well as intangible gains, they suffer and eventually society suffers. These individuals may become dependent upon others for their livelihood. At times, society has tried to be a help to persons with disabilities by providing social programs but has often inadvertently been a hindrance.

> True generosity consists precisely in fighting to destroy the causes which nourish false charity. False charity constrains the fearful and subdued, the "rejects of life," to extend their trembling hands--whether of individuals or entire peoples--

> need to be extended less and less in supplication, so that more and more they become human hands which work, and working transforms the world. (Freire, 1993, p. 45)

As persons who are deaf transition from childhood to adulthood, they must make decisions in many areas of their lives. One of these areas is choosing a vocation. In their search, many of the problems they faced when they were children struggling to make sense of their world are still a major dilemma. Often the educational systems have failed them as children and are still failing them as they reach adulthood and looking for training for employment. In addition, deaf role models or mentors are not readily accessible to them. Many times family members encourage individuals who are deaf to stay at home and receive Social Security benefits rather than find employment. Even if employment is sought, many times attitudinal barriers exist in the workplace that hinder employment.

However, a percentage of adults who are deaf have overcome barriers to employment and have succeeded in finding a vocation that satisfies them. They are productive members of society who are able to support themselves and their families. Somehow, these individuals have learned how to become successful despite many obstacles and barriers.

Much research has been conducted about the problems that have plagued persons who are deaf when they were trying

to learn a language in order to survive in life. Also, scores of professional articles and books have been written arguing the pros and cons of institutional deaf schools as compared to public schools. However, little attention has been given to the identification of characteristics of successful, gainfully employed adults who are deaf. Additionally, little is known about the learning strategies they have utilized to arrive at their life goals. Despite all of the deterrents to learning, a group of adults who are deaf have succeeded in learning and becoming gainfully employed. Adult learning theory suggests how they might have learned. However, it is not known how, or if, these adults applied standard adult learning principles to their learning. Therefore, this is a special population whose learning continues to be unaddressed.

Purpose

The purpose of this study was to listen and give voice to deaf adults as they described their perceptions of their learning patterns. To accomplish this, the learning strategy preferences of adults who are deaf were identified and related to their learning. Assessing The Learning Strategies of AdultS (ATLAS) is an instrument that identifies learning strategies in real-life situations (Conti & Kolody, 1999, p. 16). ATLAS was used to identify the learning strategy preferences of the participants. It

was administered to the participants through the use of a Certified Sign Language Interpreter so that each participant had equal access to understanding the instructions. Following this, data were collected through the use of individual, face-to-face interviews utilizing American Sign Language as the major mode of communication. The interviews were videotaped and analyzed according to themes. Qualitative and quantitative data was collected through the use of face-to-face interviews utilizing open-ended questions.

Research Questions

1. How do adults who are deaf acquire the knowledge and skill to learn effectively in specific learning situations?
2. What deterrents to learning do adults who are deaf overcome in order to get prepared for work?
3. What are the learning strategy preferences of adults who are deaf and are gainfully employed?
4. How does the Deaf culture contribute to the learning of gainfully employed adults who are deaf?

Terminology

When discussing or writing about persons with disabilities, it is important to use "person first" language. The person is not their disability, but rather, they have a disability. Therefore, when referring to persons with disabilities, it is usually appropriate to say "person who is blind" or "person with schizophrenia."

However, when writing about persons who are deaf, the Deaf community recognizes and refers to "deaf people." Therefore, in this study the researcher at times used "person who is deaf" and at times used "deaf person." The term deaf is used to refer to lacking or deficient in the sense of hearing (Merriam-Webster, 1999, p. 296). Therefore, the term deaf person is used to describe the person who is disabled to an extent that precludes the understanding of speech through the ear alone, with or without the use of a hearing aid (Moores, 1987, p. 9).

Deaf community is used to describe the unique group of individuals who are deaf that possess a unique language and culture. The members of this community self-identify themselves with the Deaf community (Lane, Hoffmeister, & Bahan, 1996, p. ix). However, Deaf culture refers to a subculture within the American culture that shares a common language (American Sign Language) as well as common beliefs, mores, values, and experiences (pp. 124-173). While many deaf adults ascribe to the Deaf culture, not all feel comfortable or even wish to belong to the Deaf community.

Most individuals who belong to the Deaf community utilize American Sign Language (A.S.L.). A.S.L. is a visual and natural language of persons who are deaf. It is a signed language that differs from other sign systems that are heavily influenced by English (Humphries, Padden, &

O'Rourke, 1994, p. 6). However, not all persons who are deaf use American Sign Language. There are other modes of communication used by those who are deaf. Some individuals who are deaf use lipreading or Signing Exact English (S.E.E.). Signing Exact English is a manually coded English system "invented by educators to represent words in English sentences using signs borrowed from American Sign Language" (Lane, & Hoffmeister, & Bahan, p. 270). Various signs serve as translation equivalents for prefixes and suffixes. Total communication is another type of communication that was initially an educational policy that encouraged teachers to use all means of communication such as pantomime, drawing, fingerspelling, English, and signs. However, now total communication is accepted as meaning signing and speaking simultaneously (p. 270).

These various sign systems have intrigued researchers for years. Much attention has been given to the acquisition of language whether it be a signed language or a verbal language such as English. There is a vast amount of research that has been conducted and literature that has been written to describe the various aspects of language acquisition. In addition, much time and energy has been spent to research and write about the Deaf culture and best practices for teaching children who are deaf. This body of literature provides a wealth of information.

CHAPTER 2

LITERATURE REVIEW

The Deaf Community

"There are, it may be, so many kinds of voices in the world, and none of them without significance" (I Cor. 14:10 KJV). In recent years, attention has been given to various individuals finding their "voice." However, the voices do not have be audible in order to be powerful. In 1998, deaf students demonstrated on the lawn of the ivy-covered Gallaudet University campus in Washington, D.C. in order to demand a university president who was deaf. In 1995, Heather Whitestone was crowned as the first Miss America who was deaf and started speaking out for those who cannot hear. Hollywood has tried to give a voice to the deaf with their movies such as Mr. Holland's Opus and television shows starring Marlee Matlin, the deaf actress. Even the XXVI Super Bowl of 1993, had Marlee Matlin sign the National Anthem while Garth Brooks sang.

Although America appears to be fascinated with the Deaf culture, the area of adult learning of the deaf has been virtually ignored. Understanding how adults who are deaf learn is important in order to be able to assure adequate training of deaf adults for the workforce now and in the future. In order to understand more fully how adults who are deaf learn, it is important to look at the various

aspects of their language acquisition, early education, role models, self-identity, and their culture.

Culture

"No Man is an island unto himself" (John Donne, 1624). Individuals exist in the context of family, community, culture, and society in general. As individuals move through life, interactions in these various settings need to be fairly smooth and positive in order for the individual to be psychologically healthy, learn effectively, and achieve success. However, when people do not feel they belong or they do not feel connected in these various contexts, problems are likely to occur.

Humans have an inner need to belong. There are basic physiological and psychological needs that must be met in order to achieve stability in life. Belonging is one of those basic needs that must be satisfied in order to accomplish higher life goals. Research has shown this to be true.

In the 1950s, Abraham Maslow, a noted researcher, theorized that individuals have basic needs that can be placed in a hierarchy according to their importance for physiological as well as psychological health (Santrock, 1997, p. 361). In Maslow's hierarchy of needs theory, the individual's main kinds of needs must be satisfied in the following sequence: physiological needs, safety needs, the

need for love and belonging, the need for esteem, cognitive needs, aesthetic needs, and the need for self-actualization (p. 361).

One of the premises of Maslow's hierarchy of needs theory is that individuals may not attain higher levels until the lower needs are met. In other words, individuals may not care much about safety needs if they are starving to death. They may risk their own lives even to obtain food. One's sense of belonging must be satisfied before self-esteem is achieved. Self-esteem needs must be met before self-actualization can occur. The highest need, which Maslow termed self-actualization, is the "motivation to develop one's full potential as a human being" (Santrock, 1997, p. 361).

It is the basic need for belonging that lies at the heart of culture. Culture is built on the commonality of its members. This commonality strengthens their bonds and allows the members the freedom to learn and grow. It is when individuals feel they do not belong that problems arise. Society may see social problems occurring when individuals are isolated from the majority group.

Within the mainstream culture of America exist many subcultures. A few examples of these subcultures may be Native Americans, Asians, Chinese, and Deaf. Each of these subcultures have attributes that make them unique. Even

though there are several ways to explain culture, one definition is that "culture consists of the behavior patterns, beliefs and all other products of a particular group of people that are passed on from generation to generation" (Santrock, 1994, p. 598). These beliefs and values are passed on from generation to generation by language. Language defines people by either connecting them or separating them.

Language

The primary function of language is social. Sociolinguists indicate that the individual alone does not need language (Werven, 1996, p. 437). "It is only when the individual begins to experience life with someone else that language emerges as a product of social interaction" (p. 437). In order for babies to thrive, there must be human contact. Before a child learns language or many of the other survival skills, there must be interaction. Therefore, it would be safe to assume that before optimum learning can take place, there needs to be significant interaction. Learning is tied to social interaction. Whether learning takes place as a child learns to ride a bike or an adult learns how to assemble a computer accurately, language is vital.

Humans are linguistic creatures. People describe what they know, who they are, and what they can do through

language (McNally, 1995, p. 13). Language is interwoven into their existence and provides the means by which their roles and responsibilities are defined. In fact, language is the link between past, present, and future generations (Werven, 1996, p. 437).

Language also brings with it power. There have been wars fought over language and ethnic differences. The use of a single standard spoken and written language basically defines one's nationality (Hobshawm, 1996, p. 1065). In fact, "in a world dependent upon human interactions, words often wield the ultimate power, and those who control language hold the world in their hands" (Deng, 2002, p. 44).

This power extends to the learning in society. Most of the time, education and training is provided in the language of the major culture. Therefore, in today's multicultural society, many individuals who do not write or speak the mainstream language are hampered or have deterrents to learning. One of these deterrents to learning comes in the form of limited role models.

Role Models

Role models are critical in the process of learning. In the Social Learning Theory, Albert Bandura hypothesized that individuals learn through observation (Ashford, LeCroy, & Lortie, 1997, p. 67). Bandura proposed that individuals learn by observing the modeled behavior of others in the

family, community, or society. In this context, reinforcement for imitating the observed behavior is not needed (p. 67). Language is the learned behavior, but it also becomes a reinforcement because individuals are able to get their needs met through communication. "Learning is augmented by the quality of relationship between learners and models" (Jacobson, 1996, p. 15). However, for this learning to be optimized, some conditions must be met.

Similarity of the individuals is one of the vital conditions to be met. One cultural model indicates that "similarity is a precondition for social interaction and subsequent exchange of cultural features" (Kennedy, 1998, p. 58). In other words, the observer must be attracted to and influenced by others who resemble what they would like to become. They are attracted to others who represent their ideal rather than their actual selves (p. 59). These similarities may include physical traits or characteristics such as skin color, hair color, stature, or even the ability to hear or not to hear.

These social or modeled relationships are vital to individuals' learning. "Thus learning is not demonstrated solely by what one is able to do, but by whom one is able to relate to" (Jacobson, 1996, p. 20). It is apparent that the model should have similar characteristics as the observer for the learning to be optimized.

As individuals observe the modeled behavior and start imitating the behavior, learning takes place. In addition to the learning, the observer starts to take on the behavioral characteristics of the model. In other words, the observer starts to identify with the model. The person's self-concept or self-identity starts to change. This is especially important in regard to learning across cultures.

Cross-Cultural Learning

By looking at various cultures and languages, one is better able to explain the concept of cross-cultural learning. For example, the Native American culture has gone through many changes during the past few hundred years. Many Native American tribes have come full circle in their learning. Years ago, they were completely immersed in their culture and language as they lived, learned, and worked together. It was only with the forced enculturation by the white men that the Native Americans started losing their language and their identity. However, in recent years, the Native Americans have come back to the realization that language and culture truly defines their past as well as their present and future.

In order to understand more fully the feelings of the Native Americans about this loss of their language, a community survey was conducted by a Blackfeet Community College bilingual project in 1984. The survey responses

indicated that the Blackfeet students felt shame about being unable to speak the Blackfeet language. In addition, the survey indicated that the students were disappointed with the loss of the language and all the attributes connected with the tribal language (Still Smoking, 1997, p. 4). This loss of language appeared to be a direct result of their forced enculturation.

As the English culture and language was being instituted in the tribes, their native language began to change. At one point in the Blackfeet history, tribal members were forbidden to speak their native language in the educational institutions (Still Smoking, 1997, p. 4). With the encouragement of educators in the early Indian schools, parents started to convince themselves that the "Indian language was not just worthless but was actually harmful in that it prevented a child from learning English" (p. 134). The white men tried to educate the Blackfeet by imposing a new way of life on them. During the process, they rejected the established patterns of the Blackfeet way of life and tried to make them "civilized" individuals (p. 12).

However, this process of "civilizing" the Blackfeet tribe took something very dear to them. It took away their language and their very life. The Native American languages described the Indian ways of life and value systems in ways that the English language could not. The translation of the

Blackfeet language into the English language lost some of the precious descriptions and connotations (Still Smoking, 1997, p. 137). Indeed, their culture along with their language started to die. Culture and learning cannot be viewed without including language. "The culture comes from the language" (Kipp, 2000, p. 6). Whether it is the Blackfeet language or any other language, the native language is not an inferior language, but rather it is the "soul of the people who speak it" (Still Smoking, 1997, p. 135).

> Language stands for the whole culture. It represents the culture in the minds of the speakers. Factors such as health, economy, religion, and philosophy are represented in the language. The holiness in the culture will be lost with the loss of the language. It is through the language that this component is best understood. (Still Smoking, 1997, p. 135)

Culture has many facets. Another way to explain culture is that culture has a "shared way of making sense of experience, based on a shared history" (Jacobson, 1996, p. 16). This history needs to be transmitted to future generations in order to survive. Language is the medium to transmit the history.

In 1997, a study was conducted of Blackfeet elders in Montana. This study was conducted to find out the perceptions of the elders of what constituted their traditional tribal knowledge base and how this knowledge

base should be passed on to future generations. When the Blackfeet elders were interviewed, they indicated that "the language is the vehicle for transmitting the culture" (Still Smoking, 1997, p. 131). The elders felt that the language should be taught in the schools to the children as well as taught to the children from infancy (p. 132).

This teaching of the Blackfeet children has begun through the establishment of "immersion" schools. Blackfeet immersion schools "look at how language interacts with life" (Kipp, 2000, p. 20). In other words, the children are not taught through bilingual education but through immersion of the language. They do not have a class that teaches them the Blackfeet language and then have their math class where they use the English language. All of the concepts and knowledge is transmitted through the Blackfeet language. Language is the curriculum (Kipp, 2000, pp. 25-26).

For the Blackfeet tribe, the last few hundred years has been an educational journey that led them away from who they really were (Kipp, 2000, p. 5). "When we lose the ability to define ourselves, to define us, then other people can define us" (p. 6). In order to get back the culture, the Blackfeet tribe is trying to restore the language through the children. In fact, they feel the "only way to save a language is to teach it to a child" (p. 25).

These tribal immersion schools closely resemble the

residential deaf schools of the United States. In fact, the history of the deaf closely resembles that of the Native Americans. At one point in time, students who were deaf were chastised harshly because they tried to use their hands to speak. In educational settings, some students' hands were slapped with a ruler for signing, or they were forced to sit on their hands and only use their voice (Zapien, 1998, p. 40). However, in today's modern residential schools for the deaf, life is quite different. The school environment is filled with deaf role models who include teachers, janitors, cooks, and dorm parents. These role models immerse the children in American Sign Language. It is in this environment that the children learn the language and the culture as well as academics. It is here they learn to be Deaf.

This immersion of the children into the language and the culture enables the children who are deaf to belong to a group that is similar to them. In addition to the language, there are other characteristics that are similar. "Not only language but also the shared experience of deafness give members of the Deaf community an exclusive link to each other likened to feelings of ethnicity" (Deaf Culture, 1995, p. 59). Cultural groups share a collective heritage, and the Deaf are no different. The Deaf community feels that deafness is part of their cultural heritage and they take

pride in that heritage (pp. 59-60).

That rich, cultural heritage has had an impact on the education of the deaf in the United States. However, the methods used in the education of the deaf have been dependent upon whether deafness is viewed as a disability or considered a culture. The culturally Deaf people's perception of deafness and the perceptions of hearing professionals who want to help the deaf have both impacted the learning of the deaf. The Deaf community feels that children who are deaf should be educated through the immersion methods while the hearing professionals usually advocate for assimilation of the deaf individuals into the hearing world (Seamans, 1996, p. 41).

Approximately 90% of all children who are deaf are born to hearing parents with no skills in or knowledge of American Sign Language (Wolkomir, & Johnson, 1992, p. 34). Therefore, those children are not exposed to the modeled behavior of a language. They are unable to hear the sounds and are therefore unable to imitate the words used in that language. It is only after the parents are educated about deafness and the various modes of communication that they are able to make an informed decision for their children. It is at that time they choose what mode of communication their children will be taught. Only then will the children be given an opportunity to learn a language. This process

may take years, and all the while the children are left without a viable language during those critical, early developmental years.

Nature vs. Nurture

During those early developmental years, many factors come into play. In the past decades, there has been an ongoing debate concerning what factors affect children's development the most. While many scientists have argued that the person's biological inheritance is the most influential factor, sociologists have argued that environmental experiences impact the development more. In this ongoing debate of nature versus nurture, much research has been conducted from both camps. In other words, does genetics have more of an influence over children's learning and development, or is the environment the driving force.

Biologists argue that language is influenced by genetics while sociologists argue that it is a learned behavior (Berk, 1996, Werven, 1996, Wolkomir & Johnson, 1992). Some researchers argue that maturation is clearly a prerequisite to language development because children need to attain a certain level of neurological and muscular development before they can talk (Berk, 1996, p. 236). However, environment also plays a large part in the development of a language. If the parents encourage the children's babblings and first efforts at words, the

children will start to speak at an earlier age than children who are not encouraged (Papalia & Olds, 1978, p. 14).

Researchers have been studying American Sign Language in their quest to understand the brain's capacity of language (Schiffler, 2001, p. 329). The capacity for language is part of what makes us human. It is through language that people interact with others and pass on to future generations what they have learned from past experiences.

In recent years, technology has provided researchers with sophisticated means of looking at language acquisition. The use of Magnetic Resonance Imaging and Positron Emission Tomography, both non-invasive procedures, have actually enabled researchers to study brain functions. These procedures have been helpful at looking at both hearing and deaf participants' brain activity. Using these methods, researchers have found that in humans the language area is located in the left hemisphere of the brain while emotions, melody, and spatial perception is located in the right hemisphere (Schiffler, 2001, p. 327). Research further indicates that when profoundly deaf individuals are using "inner signing" or thinking in signs, they are not using the right hemisphere where the visuo-spatial areas are located, but they are using the left hemisphere which is the language area (p. 328).

Language controls thought, and thought controls language. "Language is the immediate actuality of thought" (McNally, 1995, p. 13). Further, researchers have concluded that:

> Essentially there exists three positions on the interdependence of thought and language: 1) Thought and language are the same, 2) Thought is dependent upon language, 3) Language is dependent upon thought (Werven, 1996, p. 438).

In other words, a person "thinks in language" whether that language is a verbal language or a language of hand signs. Language is tied to the thought processes and therefore tied to learning.

While biologists have been studying the development of language from their viewpoint, linguists have been looking at language development through their lenses. In fact, during the last 20 years, linguists have realized that signed languages are definite languages with all of the attributes of any other language (Wolkomir & Johnson, 1992, p. 30). However, during this research, the question again arose "whether language, complete with grammar, is innate in our species, or whether it is a learned behavior" (p. 30).

Linguists agree that signing probably began with simple gestures and then evolved into a true language with structured grammar. The anthropological linguist, Bob Johnson, has stated that every place where they have found people who are deaf, they have found signs. However, these

signs are not the same worldwide. Even though these signs may differ from country to country, linguists agree that there is a definite structure to these signed languages (Wolkomir & Johnson, 1992, p. 31).

Bill Stokoe was one man who was influential in the world recognizing American Sign Language as a true language. Stokoe taught English to the deaf students at Gallaudet University in Washington, D. C., which is the only liberal arts college for the deaf in the United States. Stokoe became interested in the structure of sign language after he started seeing that his deaf students signed differently than did his hearing teachers who had taught him signs. The signs he had learned were hand signs that used the English syntax and structure. However, he saw a much richer, natural language being used by the students outside of the classroom. Stokoe found it was like spoken languages which combined bits, which were meaningless by themselves, into meaningful words. In the 1960s, Stokoe published his findings in a book, Sign Language Structure. Five years later, he published the first dictionary of American Sign Language based on linguistic principles (Wolkomir & Johnson, 1992, pp. 30-31).

Linguists have reasoned that:

> If ASL is a true language, unconnected to speech, then our penchant for language must be built in at birth, whether we express it with our tongue or

hands. (Wolkomir & Johnson, 1992, p. 34)

It is only after birth that the environment starts coming into play with language acquisition. Language is modeled, and children are encouraged to imitate or learn a language in order to get their needs met.

Biology will not dictate what language individuals will speak, but it virtually guarantees that they will acquire a language if given the opportunity within their environment. In other words, biology does not "determine exactly what we'll do in life. It determines how different environments will affect us" (Cowley, 1995, p. 52). Biology does not act alone. Environment along with biology shapes behavior. Researchers have found that an:

> Examination of the relations between culture and nature suggest that changes in this relationship now demonstrates what has always been the case, namely, that nature is elaborately entangled and fundamentally bound up with the social and the cultural. (MacNaghten, Nicholson, Song, & Parker, 1995, p. 203)

Scientists are now conceding that genetics and environment work together to determine personalities and behaviors. In other words, "nature affects nurture affects nature and back and forth" (Peyser & Underwood, 1997, p. 60). Biologists argue for the nature side while sociologists support the nurture side. However, neither side is totally correct. "Human behavior is a mix of cultural and biological impulses" (Fukuyama, 1997, p. 30).

Indeed, behavior is strongly influenced by genetic inheritance as the biology and culture interact in complex ways (p. 31).

In order to study the ways biology and culture interact, David Reiss, a psychologist from George Washington University, conducted a 12-year study. Reiss studied 720 pairs of adolescents with different degrees of genetic relatedness. This study attempted to reconcile nature and nurture by explaining how the genetic tendencies were encouraged or stifled by how the parents responded to the children. Reiss concluded that "many genetic factors, powerful as they may be in psychological development, exert their influence only through the good offices of the family" (Begley, 2000, p. 64). In other words, research indicated that even though the genes were present, they needed to be activated by the environment or the influence of the parents or significant people in the individuals' lives.

This research reinforces the idea that genes and environment interact. In other words, "nurture reinforces or retards nature" (Sapolsky, 2000, p. 68). A particular gene may actually have a different effect on the individual depending upon the environment (p. 68). Genetics may give individuals a slight advantage. However, that advantage may be magnified or minimized by the way people relate to their environment (Kaplan-Leiserson, 2001, p. 18).

One of the best ways to look at the nature versus nurture debate is through a study of languages. Noam Chomsky of the Massachusetts Institute of Technology found that "all human languages bear a striking underlying similarity" (Economist, 1992, p. 35). Chomsky called this "deep structure" and argued that the ability to acquire language was innate and not a product of environment. Further research has concluded that "humans have a 'language organ' designed for learning grammatical language" (p. 36). Even though the ability to learn a language is innate, the vocabulary and accent is shaped by the environment (p. 35). Humans are predestined to learn a language, but it is only when given the right environment will that language develop sufficiently.

Research indicates that language is an innate ability, but it is molded by the environment. Therefore, this is an issue that needs to be reckoned with as it relates to persons who are deaf. Since 90% of children who are deaf have hearing parents, a significant number of children are not given the optimum environment for learning a language (Wolkomir & Johnson, 1992, p. 34). Trying to learn English with only watching the lips move and never having heard the sound of the language is virtually an impossibility. Thus, the children are deprived of a way to express themselves (Stebnicki & Coeling, 1999, p. 352). Deprivation of a

language during those critical, developmental years is devastating when the children are young, but it also has an impact on them later on in life. It is during those early years that children develop a self-identity. Some professionals feel that "deafness can lead to a low self-concept in the deaf person that may begin at a very young age" (p. 352).

Self-identity

The self-identity or self-concept of individuals is an important aspect when viewing culture and learning. It is difficult to separate a person's identity from learning and from culture (Jacobson, 1996, p. 20). This self-concept consists of multiple components that can be divided into three categories. These categories are private, collective, and public. The private category includes such things as individual traits, states, or behaviors while the collective category involves the individual as a member of a group. The public category extends this to the individual as represented to others (Jacobson, 1996, p. 20). Indeed, as individuals who are deaf seek to construct their identity, many individual as well as social issues come into play.

Children who are deaf and are born into hearing families are not able to communicate their needs easily. They may become frustrated at the lack of communication and being left out of family interactions. These individuals

may start to act out or have behavioral problems. Many times deaf children are labeled as problem children and act out even more. Thus, isolation grows worse along with insecurity, suspiciousness, and loneliness (Stebnicki & Coeling, 1999, p. 352). With the negative attention given to them, as well as their own insecurities, children who are deaf many times start seeing themselves as "different" and even "bad." They find it difficult to be deaf while trying to fit into a hearing world.

Many children who are deaf and living in hearing families never have the opportunity to see other people who are deaf. When these children enter the public school system, there may not be other children attending who are deaf (Lane, 1984, Lane, & Hoffmeister, 1996). Even if there are other deaf children at the public school, many still will not have a viable language with which to communicate with each other. Each child may be trying to accomplish communication in various ways depending upon the mode of communication the parents have chosen for them. For instance, one child may be trying to lipread and verbalize while another child may be trying to learn sign language. Another's parents may have decided that their child will learn cued speech while yet another child may be using total communication.

With these various modes of communication being used at

school and their own unique situation at home, it is no wonder that children who are deaf have a difficult time developing a positive self-identity. However, as individuals who are deaf grow up, they start to identify with one group or another. They struggle to develop an identity. Researchers have attempted to separate these identities into three distinct categories. These three identities are divided into the hearing identity, immersion identity, and bicultural identity (Bat-Chava, 2000, p. 422).

The hearing identity defines deafness from a purely pathological stance according to the medical model. The focus is on deafness as an impairment or disability that needs to be "fixed." This group assumes a "culturally hearing identity, assimilating as much as possible into the hearing world by using their residual hearing (either through amplification or cochlear implants) and speechreading" (Bat-Chava, 2000, p. 420).

Those who consider deafness from the cultural viewpoint, or the immersion identity, feel that the members are part of a cultural minority complete with their own language. From this stance, there is no impairment. Therefore, they do not need to be "repaired." This group views sign language as their first language and use sign language interpreters to gain access into the hearing world (Reagan, 2002, pp. 48-51).

A third viewpoint is the bicultural identity. This particular group appears to try to "fit" into both the hearing and Deaf culture. This third identity may very well be the most difficult for the individuals. These individuals are trying to live and work in a mainly hearing society while trying to keep a semblance of the Deaf culture. While their hearing families and co-workers may admire their efforts, their Deaf friends may view them as traitors or at the least trying to be "hearing." Even though they may be functioning fairly well in a hearing society, there could still be many embarrassing misunderstandings due to the communication barriers. Therefore, this dual identity may have an adverse effect on the individual's self-esteem (Reagan, 2002, p. 58).

In addition to impacting the individual's self-esteem, trying to live in two different cultures may also impact the learning of the deaf. For instance, even if persons who are deaf are being educated in a public school system, American Sign Language is rarely the medium of instruction in that type of formal education setting (Lane, Hoffmeister, & Bahan, 1996, Moores, 1987). Usually some form of signed English is utilized in the public school system. This is due to a limited number of skilled professionals. "Many hearing people sign but relatively few are competent in American Sign Language" (Reagan, 2002, p. 51). The public

school system usually places the children who are deaf in the regular classroom with accommodations being made either through speech therapy being offered or through the use of a sign language interpreter. However, mainstreaming individuals who are deaf in the public school system usually means a lack of contact with others who are deaf (Reagan, 2002, pp. 58-59). This lack of contact with other individuals who are deaf further separates them from a culture that is so essential to their self-identity.

Even though it appears easy enough to divide individuals into the three previous groups, it is difficult to truly divide a person's identity into distinct categories. Rather than viewing deafness from these three distinct categories, some researchers believe "the reality of deafness and Deafness is one of a continuum of multiple identities ranging from 'hearing' to 'Deaf'" (Reagan, 2002, p. 43). It would also be noted that persons who are deaf may view their identity quite differently than others outside the group would view them (Dolnick, 1993, Lane, & Hoffmeister, & Bahan, 1996). Therefore, the construct of identity depends on how the individuals as well as how society as a whole views deafness (de Halleux & Poncelet, 2001, Lane, Hoffmeister, & Bahan, 1996, Tucker, 1997).

> Indeed, identity is constructed both personally and socially and both personal and social constructions of identity take place within the

> context of cultural, social, and historical understandings (and misunderstandings). (Reagan, 2002, p. 44)

These multiple identities have many contributing factors. These factors may include when the individual became deaf, what communication method is used in the home, if the family into which they are born is hearing or deaf, and the degree to which they are exposed to other individuals who are deaf. Since most deaf children are born into hearing families with no knowledge of deafness or sign language (Dolnick, 1993, p. 38), the main influence upon the families will be the health professionals and educators.

Many times these professionals view deafness as a disability (de Halleux,& Poncelet, 2001, Dolnick, 1993, Lane, Hoffmeister, & Bahan, 1996). Their professional opinion usually has a profound effect on the parents' views of deafness, and this view is then passed on to the children. These children who are deaf may feel isolated, different, and inferior. Even though there is much attention given to the children, it is usually of a negative nature. In fact, the attention may be due to the fact that the deafness is considered from a medical stance, and it is characterized as an auditory defect. Since the children have a defect, there must be a need to remediate the problem (de Halleux & Poncelet, 2001, Dolnick, 1993, Lane, Hoffmeister, & Bahan, 1996, Tucker, 1997). Professionals

usually feel a need to develop medical interventions or at the very least to teach speech and lipreading in order to help the deaf individuals become as similar to hearing individuals as possible (Reagan, 2002, pp. 45-46).

However, if the parents or siblings are deaf, there is a positive light shed on deafness. The individuals are usually exposed early through interaction with the family and other deaf individuals to the culturally Deaf community (Bat-Chava, 2000, p. 421). At a young age, these individuals feel a kinship and a sense of belonging. They "fit" into their environment. The parents who are deaf may feel more comfortable signing and trying to communicate with their deaf children. The culturally Deaf community may actually take a strong interest in the children who are deaf. They may sign to them early on and embrace them as "one of them." Indeed, even this extra attention may add to the individuals' self-esteem and help them with the acquisition of their self-identity.

The influencing environment will not only be the family environment but will include the school environment. With the passage of Public Law 94-142, children are to be given a fair and appropriate education in the least restrictive environment (Zapien, 1998, pp. 41-42). Many educators and health professionals feel the least restrictive environment is the public school system with accommodations being made

through either speech therapy being provided or sign language being taught. However, even if sign language is being taught in the school, it may not help when the children return home. Communication may still be hampered in the home due to the parents' limited knowledge of sign language (Lane, Hoffmeister, & Bahan, 1996, Schein, 1989). On the other hand, least restrictive environment for the children from families who are deaf may mean attending the residential school for the deaf which may have been their parents' alma mater. There is usually a sense of pride accompanying that transition (Dolnick, 1993, pp. 38-40). The children attending the hearing public schools are immersed into the hearing culture while the children attending the residential schools for the deaf are naturally immersed into the Deaf culture. Thus, the children's self-concept is further strengthened (Bat-Chava, 2000, Lane, Hoffmeister, & Bahan, 1996).

As these individuals who are deaf transition from childhood into adulthood, they must decide which path they will follow. Will they continue to live only in the hearing community, or will they choose to become involved in the Deaf community? Perhaps they will try to live and work in both worlds and transition between as needed. Their experiences from childhood will accompany them along this journey as will the attitudes of the people who influenced

them the most. Biology will play a major role in their adult development as well as the environment that has shaped them and will continue to shape them.

The adult education system into which they will transition may bring with it the same problems as the public school system that they have tried to abandon. Many of the same struggles to learn they experienced as children will now accompany them into adulthood. Some professionals may still see them as "in need of repair" and unable to live and work as other successful hearing individuals. Again, they may be told, not in so many words as in attitude, that they are unable to "fit" into the hearing world. They may be told it is better to receive a Social Security check every month than to try to work for a living. Yes, adulthood will be a journey of learning, transformation, and hopefully, empowerment. They will decide for themselves which world they will choose. As the individuals who are deaf transition from childhood into adulthood, they take on the characteristics of adult learners.

Adult Learning

Adult learning is as varied as the individuals who perform this task. In order to survive in this fast changing world, adults need to learn to adapt and change according to their unique situation.

Lifelong learning is not a privilege or a right;

> it is simply a necessity for anyone, young or old, who must live with the escalating pace of change--in the family, on the job, in the community, and in the world-wide society. (Cross, 1981, p. ix)

The technology and social changes that have occurred in the past decades and that are anticipated in the future have created much interest in trying to understand more fully how adults learn.

Andragogy

Andragogy is the art and science of helping adults learn (Knowles, 1980, p. 43). Alexander Kapp, a German grammar school teacher, first used the term andragogy (Knowles, 1998, p. 59). However, Malcolm Knowles is hailed as the father of modern andragogy.

Adult learners possess certain characteristics. Therefore, andragogy is based on assumptions about the adult learner (Merriam & Caffarella, 1999, p. 272). Originally, the andragogical model consisted of four basic assumptions:

1. The adult's self-concept moves from one of being a dependent personality toward one of being a self-directed being.
2. The adult accumulates a growing reservoir of experience that becomes an increasing resource for learning.
3. The adult's readiness to learn becomes oriented increasingly to the developmental tasks of social roles.
4. The adult's time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness. (Knowles, 1980, pp. 44-45)

Knowles (1998) later expanded the model by adding two more assumptions about the adult learner: adult learners need to know why it is important before they learn it (p.64), and motivation is internal(p. 68).

Adults learn on a daily basis. However, it was not until the early part of the twentieth century that adult learning was studied seriously. Adult education became a professional field of practice in the 1920's, and since that time much research has been conducted in how adults learn (Merriam, 2001, p. 3). The concepts of andragogy and self-directed learning have become the "pillars of adult learning theory" (p. 3). However, Knowles felt that andragogy should not be considered a theory but rather assumptions of characteristics of adult learners (p. 5). While these adragogical assumptions clearly fit adult learner characteristics, they are not entirely foreign to children. Therefore, between 1970 and 1980, Knowles revised his position to include the idea that adult education could range from teacher-directed to student-directed (p. 6). However, self-directed learning is still at the heart of the andragogical concept.

Self-Directed Learning

The ability to be self-directed is a characteristic of the adult learner. "Every man who rises above the common level has received two educations: the first from his

teachers; the second, more personal and important, from himself" (Gibbon, 1923, p. 66). Self-directed learning is:

> A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (Knowles, 1975, p. 18)

Self-directed learning has long been the norm, but only since the 1970's and 1980's has serious studies on this subject become prevalent (Merriam & Caffarella, 1999, p. 315). This process of planning for, carrying out, and evaluating personal learning experiences can take place inside or outside institutionally-based learning programs (p. 293).

Self-directed learning is a natural part of adult life (Merriam & Caffarella, 1999, p. 293). The concept may seem to imply that learning takes place in isolation; however, it is just the opposite. This type of learning usually takes place in association with various other individuals such as tutors, mentors, resource people, teachers, or peers. This type of learning appears to indicate mutual effort among a group of self-directed learners (Knowles, 1975, p. 18).

Internal incentives such as the need for self-esteem, the desire to grow and achieve, the need to know something specific, curiosity, and the satisfaction of accomplishment are all characteristics of the adult learner (Knowles, 1975,

p. 21). Self-directed learners have an increasingly rich reservoir of experiences upon which to draw, and they are ready to learn what is required to perform evolving life tasks or cope with life problems (Knowles, 1975, p. 20).

The concept of self-directed learning applies to many activities and settings. This type of learning may vary from being as simple as learning a new recipe to something as complex as how city government works. It can be accomplished in solitude or within a group. The process can vary from reading how to accomplish the task to listening to a speaker. Adults of all cultures have the capacity to learn how to be self-directed. However, in order to become proficient in self-directed learning, adults must understand and master how to learn in various situations.

Learning How to Learn

Learning how to learn is another concept of adult learning. This concept involves "possessing, or acquiring, the knowledge and skill to learn effectively in whatever learning situation one encounters" (Smith, 1982, p. 19). The learning how to learn model has three subconcepts which are the learner's needs, a person's learning style, and training (Smith, 1982, p. 17).

The learner's needs includes such things as having a general understanding of learning and even the basic academic skills of reading and writing as well as other

institutional learning methods. In addition, listening or viewing are basic skills deemed necessary in the learning how to learn process (Smith, 1982, pp. 20-21).

The person's learning style is the unique way in which an individual approaches a learning task (Smith, 1982, p. 23). These learning styles represent individual differences that are identifiable and are "the individual's characteristic ways of processing information, feeling, and behaving in learning situations" (p. 24).

Training indicates specific or deliberate efforts involved to help people improve learning in academic or educational settings (Smith, 1982, p. 25). Training can occur unconsciously. However, in order to be effective, it needs to have a degree of purpose behind it. It is actually the process of enabling individuals to acquire skill in learning (p. 25).

Learning can occur in a classroom, but it also occurs as people experience real life. "Learning how to learn happens in everyday lives" (Ghost Bear, 2001, p. 13). Whether it is learning to walk, talk, read, drive a car, or care for a newborn, the process of learning is continuous.

Real-Life Learning

Real-life learning is learning that is relevant to "the living tasks of the individual in contrast to those tasks considered more appropriate to formal education" (Fellenz &

Conti, 1989, p. 3). Formal education does little to prepare people to learn from everyday life experiences (Sternberg, 1990, p. 35). At least nine differences exist that differentiate real-life and academic problem solving.

The first two differences between learning that occurs in real-life as compared to the academic setting relates to recognizing and defining the problem. The individual must recognize that a problem exists and accurately define it. However, in academic settings, the learner is accustomed to the teacher being the authority and presenting the problem along with the information to solve the problem.

The next three differences between learning that occurs in real-life as compared to the learning in the academic setting relate to the structure, the context, and the answers for the problems. The learning that takes place in an academic setting is usually taken out of context while real-life learning problems are directly related to the learners' lives (Sternberg, 1990, p. 35).

The sixth difference between real-life learning and learning that occurs in academic settings revolves around accessibility of problem-solving information. In real-life learning, "it is not clear where to get the information or even what exactly the information is that you need" (Sternberg, 1990, p. 39). However, in academic settings, the information is usually given by the instructor.

The seventh and eighth difference between real-life learning and the learning that occurs in academic settings relate to questioning beliefs and feedback. In real-life learning the beliefs of the learner may be challenged almost on a daily basis whereas in an academic setting the beliefs of the learner is rarely challenged. Feedback is usually given in a concrete and timely manner in academic settings whereas feedback in real-life learning may be muddled, untimely, given in undesirable ways, or not given at all (Sternberg, 1990, pp. 36-39).

The final difference between real-life learning and learning in an academic setting involves individual versus group problem solving. In real-life learning situations, the individual rarely works alone while in traditional academic settings, the problem solving usually focuses on one individual arriving at the correct answer (Sternberg, 1990, p. 40). Real-life learning can take several forms as the individual approaches life tasks and problems. At times, these learning opportunities bring about real changes in the adult's behavior and transforms the way in which one views the world.

Transformational Learning

Transformational learning involves a fundamental change in the way individuals view themselves and the world in which they function. This type of learning centers on the

cognitive process of learning which utilizes the mental construction of experience, what that experience means to the person, and reflection. Transformational learning concepts explain how adults interpret their life experiences and how they make meaning out of these experiences (Mezirow, 1991, 1995). This meaning is unique and internalized. Thus, a person's reality is subject to personal interpretation and revision (Mezirow, 1991, p. xiv).

Each individual brings into adulthood certain beliefs, feelings, values, or attitudes, which are referred to as meaning schemes. However, at times these meaning schemes are challenged by a disturbing event or something in the environment (Mezirow, 1991, 1995). Transformational learning theory calls this event a disorienting dilemma which could be a life event such as death of a loved one, a major illness, disability, or some type of a crisis in the adult's life (Mezirow, 1991, 1995). At this point, the adult's previous problem-solving strategies are no longer helpful to resolve the situation. The adult engages in self-examination or a critical assessment of assumptions about life in general and may start to recognize that others may have gone through the same type of painful experience. At this point, adults start exploring options for forming new relationships or roles in their life or develop a plan of action to make sense of what is happening. This plan of

action may involve a variety of actions such as making a rational decision or involvement in a radical political protest. The adult reintegrates back into life with new and transformed perspectives (Mezirow, 1991, 1995).

As individuals transition from adolescence into adulthood, transformational learning strategies are utilized to make sense of experiences and beliefs about these experiences. It is a natural extension of adult learning as the adult learns to think independently of others. In other words, the adult is constantly evolving by learning more about self, the surrounding world, and how to make sense of what is happening. Adults have the ability to reflect upon their experiences and examine their lives. Socrates said, "The unexamined life is not worth living" (Kidd, 1973, p. 12).

Life is ever-evolving and unfolding as the adult moves toward social and individual goals (Kidd, 1973, p. 12). In fact, this transformational learning process can be expanded to include the larger framework of radical social change. This concept has been termed conscientization (Freire, 1970) or consciousness-raising and empowerment (Merriam & Caffarella, 1999, p. 324).

Empowerment

Education is never neutral (Freire, 1970). Education "either domesticates by imparting the values of the dominant

group, so that learners assume things are right the way they are, or it liberates, allowing people to reflect critically on their world and take action to move society toward a more equitable and just vision" (Merriam & Caffarella, 1999, p. 324-325). Truly, knowledge is power.

As adults begin to critically reflect on their world, they begin to sense that they may have some control over their own lives. Indeed, they may start to question things as they are and seek to become an active agent in creating a more just reality (Merriam & Caffarella, 1999, p.325).

Empowerment is applicable to the individual or a group of individuals. One important school that has been instrumental in empowering individuals is the Highlander Folk School in Tennessee which was started by Myles Horton. The original purpose of the Highlander Folk School was to "assist in creating leadership for democracy" (Adams, 1975, p. 86). The school was opened in 1932 to assist various labor, farm, community, religious, and civic organizations that were working toward a democratic goal (Adams, 1975, p. 86). Myles Horton's educational philosophy and his radical ideas touched many lives across America. Highlander Folk School had a life changing influence on many individuals which included various labor leaders and Civil Rights leaders such as Rosa Parks (Adams, 1975, p. 122). These individuals in turn were able to impact others and

eventually created social change.

While Horton did work with individuals toward empowerment for social change, personal empowerment took place first in their own lives. Persons with disabilities as well as other special populations have a need to recognize their own personal power. Empowerment is the process of the individual replacing feelings of hopelessness and powerlessness with a more positive view of self. A sense of power counters the negative image or stereotype one has with a more positive self-image (Zastrow & Kirst-Ashman, 1997, p. 230). In fact,"the ultimate goal of learning in the social environment is empowerment" (Fellenz & Conti, 1989, 21). Groups of people can utilize participatory research which is a process where groups can take responsibility for identifying their own problems, analyzing these problems, and utilizing knowledge to find workable solutions to these problems (pp. 18-19). This in turn collectively empowers the entire group. Liberation occurs through praxis "the action and reflection of men upon their world in order to transform it" (Freire, 1970b. p. 66). Empowered individuals increase their ability to make and implement decisions about their own life. Individual differences influence these decisions and the learning that results from the decisions. These differences also are reflected in the adult's learning strategies.

Learning Strategies

As adults engage in life situations and encounter problems, they must have a way to solve or address these problems. Whether it is in an academic setting or in real-life learning, adults use various strategies to accomplish their learning needs. Learning strategies are those skills that the learner has developed to utilize in both formal and nonformal learning situations. Thus, learning strategies are the behaviors that individuals develop through previous experiences in order to accomplish a learning task (Conti & Kolody, 1998, p. 132).

The Center for Adult Learning Research at Montana State University conducted research on learning strategies that adults utilize in real-life learning situations. The areas of metacognition, memory, metamotivation, resource management, and critical thinking were found to be vital aspects of the adult learning process (Fellenz & Conti, 1989, p. 8). Metacognition is a conscious effort of the learner to analyze, assess, and manage learning activities. Learners need to be aware of their strengths to maximize those and be aware of their weaknesses in order to compensate for those. Memory refers to those mental activities used to store, retain, and retrieve knowledge. Material that is meaningful for the individuals will be retained longer than material that is insignificant to the

learners. The term metamotivation deals with the learners' awareness of their internal motivation to learn something rather than the external motivation in more traditional educational settings. Resource management is identifying those resources needed to find solutions to everyday problems. While some adult learners prefer to seek out books, newspapers or the Internet, other learners seek out people for resources. Both areas are valuable resources, but again it refers back to the individual's unique preferences. Critical thinking is a process that utilizes higher order thinking skills. This process looks at exploring alternatives for a solution as well as identifying and challenging assumptions and concepts (Conti & Kolody, 1999a, pp. 3-8). As these aspects of adult learning were researched, three specific groups of learners emerged. These were identified as Navigators, Problem Solvers, and Engagers.

Navigators are structured learners that rely on the strategies of planning, attention, identification and critical use of resources, and testing assumptions (Conti & Kolody, 1999, p. 9). These learners utilize external aids such as lists to reinforce their memory. They are well organized and work well when material is presented in logical sequence and they have clear-cut goals and objectives (pp. 9-10).

Problem Solvers utilize critical thinking in their learning. Like Navigators, Problem Solvers also look to external resources to aid in their learning, but they like to generate alternatives to the solution by utilizing higher order thinking skills (Conti & Kolody, 1999, p. 11). They are able to adjust their learning processes to fit their needs (p. 12).

Engagers are "passionate learners who love to learn, learn with feeling, and learn best when they are actively engaged in a meaningful manner with the learning task" (Conti & Kolody, 1999, pp. 13-14). In addition to utilizing the affective domain, Engagers also utilize the cognitive domain by monitoring their progress and adjusting learning plans to stay on task. Their learning is focused more on internal needs rather than on external standards (Conti & Kolody, 1999, pp. 13-15).

Summary

Much research has been conducted in the realm of language acquisition as well as oralism vs. sign language. Also research has been conducted in the arena of adult education and even cross-cultural learning. However, little attention has been given to the learning strategies of adults who are deaf. The research community has ignored the voice of those who are deaf in regard to their perceptions of their learning problems. Therefore, research

needed to be conducted that listened to their cries.

CHAPTER 3

METHODOLOGY

Design

This study utilized a descriptive or qualitative research design. Descriptive research involves collecting data to answer questions about a particular topic of study or subject in its current status (Gay & Airasian, 2000, p. 11). The descriptive approach is the appropriate design for studies which focus on discovering new information and insights as they relate to specific groups of people. In addition, the researcher utilizing descriptive or naturalistic design recognizes that reality is "constantly changing in terms of time, people, episodes, settings, and circumstances" (Guba, 1978, p. 15). In qualitative research, the data is usually reported through the use of narratives or verbal reports and consists of questions that have usually never been asked before (p. 11). In addition, qualitative research probes deep into the research setting "in order to obtain understandings about the way things are, why they are that way, and how the participants in the context perceive them" (Gay & Airasian, 2000, p. 16).

This study investigated the perceptions of the learning patterns of adults who are deaf and are successfully employed as well as deaf adults who are unemployed. Both populations were interviewed in order to compare their

perceptions and viewpoints. As the researcher is trying to understand the phenomena that is being studied, it is important to remember reality "exists only in the minds of individual people and depends heavily on their separate perceptions" (Guba, 1978, p. 15). It should be noted that in qualitative or naturalistic research, the researcher plays a large part in the study. In fact, the researchers themselves become the main instrument as they collect the data (Gay & Airasian, 2000, p. 19). Conventional inquiry "has historically acted as if inquiry were, and could be, value free" (Guba, 1978, p. 16). However, naturalistic researchers recognize that their values are very much a part of the inquiry and this needs to be communicated clearly in order to avoid misleading persons who may use the findings. In addition, naturalistic researchers must recognize that there may be multiple value positions and that all are worthy of being described and also are an important element of the study itself (p. 16).

The Researcher

In a descriptive research study, the researcher becomes the primary instrument for data collection and analysis. By interacting with the participants, the interviewer can develop a rapport and trust with the participants (Guba, 1978; Merriam, 1988).

By establishing rapport and a trust relationship,

> the interviewer can often obtain data that subjects would not give on a questionnaire. The interview may also result in more accurate and honest responses since the interviewer can explain and clarify both the purpose of the research and individual questions. (Gay, 1996, p. 262)

This is even more important when interviewing members of the Deaf community. The communication must be clear and easily understood in order to elicit indepth information into their Deaf world. In addition, the participants must trust that the researcher has the Deaf community's interest at heart and that the researcher has a clear understanding of the Deaf culture.

My interest in studying the learning characteristics of adults who are deaf comes from my own experiences. Even though I am a hearing person, I adopted a deaf son and was a foster mother for another young deaf boy. I hold a master's degree in Vocational Rehabilitation Counseling and am a Certified Rehabilitation Counselor. I worked in the capacity of a Rehabilitation Counselor for the Deaf for 12 years, and I currently hold a Level IV Sign Language Interpreter Certification according to the Quality Assurance Screening Test in the state of Oklahoma.

In addition to being a Rehabilitation Counselor for the Deaf for 12 years, I have taught American Sign Language classes at Napa Valley Junior College in Napa Valley, California, and at San Joaquin Delta College in Stockton,

California. I have also taught American Sign Language classes at Connors State College and Eastern Oklahoma State College both of which are located in southeastern Oklahoma. Currently, I am an Assistant Professor in the Human Resources Department at East Central University in Ada, Oklahoma. In order to advocate for the deaf and hard of hearing population in Oklahoma, I have served on the State of Oklahoma Rehabilitation Council for six years, two of which I served in the capacity of Chair Person.

In addition to being a Certified Rehabilitation Counselor, I also hold a license as a Professional Counselor (L.P.C.). Being trained as a professional counselor has given me the interviewing and counseling skills needed in order to conduct the sensitive interviews in this study. During the interviews, many of the participants became very emotional discussing the struggles they endured, the isolation they felt, and the emotional pain they still carry. After the interviews were completed and the videotape equipment turned off, I processed with each one what we had discussed. If there was a need, I counseled with the participants for up to 30 minutes after the taping in order for the participants to process what they had just disclosed. For many of the participants, the interviews were emotional yet cathartic in nature.

This particular study grew out of a need for me to

understand what I had seen happening with my own clients over the years. In my career of working with individuals who are deaf and hard of hearing, I began to notice that some were able to adapt to society in general much better than others. While some were able to be successful in employment, others were not. As I talked with people in the Deaf community as well as other hearing professionals in the field of education and rehabilitation, I began to recognize discrepancies in what I had been taught about deafness and the Deaf culture and what I was observing in the lives of persons who are deaf. I wanted to know from the deaf adults themselves about their perceptions of their learning experiences.

Sample

The population is a specific group that has similar characteristics and "the group of interest to the researcher, the group to which she, or he, would like the results of the study to be generalizable" (Gay & Airasian, 2000, p. 122). A sample is a group that is selected in such a way that it is representative of the population from which it was drawn (p. 121). Since the multiple value positions are so important in naturalistic or qualitative inquiry, the sample should be stratified to reflect this. In other words, the sample should be chosen in such a way that the identified subgroups within the population are represented

in the same proportion as they exist in the population (p. 140).

In order to study the contributing factors that lead to the employment of adults who are deaf, a sampling of the population was acquired. Sampling is simply the process "of selecting a number of individuals for a study in such a way that they represent the larger group from which they were selected" (Gay & Airasian, 2000, p. 121). The larger group from which the sample is taken is referred to as population (p. 121). In order to accomplish the sampling, the researcher looked to the available or accessible population of adults who are deaf living in Oklahoma.

The target population for this study were adults who are deaf and are working and have obtained substantial gainful activity according to Social Security standards. "Substantial gainful activity" is a term utilized by the Social Security Administration to indicate that an individual earns a substantial amount of income and, therefore, does not need financial assistance from the government to survive (Social Security Handbook, 2001, p. 132). These individuals are self-supporting and do not rely on Social Security benefits for their income. In addition, adults who are deaf and unemployed were also interviewed in order to more fully understand their learning strategies and perceptions and to compare the responses of both groups.

The sampling was further delimited due to the fact that it was a purposive sample. This purposive sampling, or judgement sampling, is based on the researcher's "experience or knowledge of the group to be sampled" (Gay & Airasian, 2000, p. 138). The purposive sampling was beneficial due to the fact that individuals who are deaf are not easily accessible to researchers who are unfamiliar with the Deaf community or other agencies or organizations where individuals who are deaf congregate. However, purposive sampling does have a weakness in that there is a "potential for inaccuracy in the researcher's criteria and resulting sample selections" (Gay, & Airasian, 2000, p. 138). Efforts were made to assure the sample selected was representative of various demographics.

The purposive sample for this study consisted of volunteers who were recruited from the Oklahoma School for the Deaf; Tulsa Speech and Hearing Association, Inc.; and the Department of Rehabilitative Services. They are self-identified as deaf. The purposive sample included 20 individuals who represented a cross section of adults who are deaf. The sample consisted of adults of employment age.

A balance of individual and cultural characteristics was a priority in selecting the sample. In this particular study, the participants' perceptions of their deafness was used as one of the criteria for the sample. In other words,

audiological reports were not completed, but the participants were self-identified as being deaf. In addition, every effort was made to have a balance of individuals who were gainfully employed and those who were not gainfully employed. Social Security guidelines were used to ascertain gainful employment.

The researcher was sensitive to each participant's major mode of communication and utilized whatever language form that individual preferred. It was not a criteria that the individual use American Sign Language. All forms of communication were utilized such as Total Communication with American Sign Language or lip reading with using sound amplification. Persons who were gainfully employed as well as persons who were not gainfully employed were interviewed. Persons who ascribe to the Deaf culture as well as those who ascribe to the hearing culture were interviewed. Therefore, the researcher had the opportunity to contrast and compare the life stories of each group.

In order to obtain the sampling, the researcher accessed the School for the Deaf in Sulphur, Oklahoma; Tulsa Speech and Hearing, Inc. in Tulsa, Oklahoma; as well as the Oklahoma Department of Rehabilitative Services. The School for the Deaf provided access to individuals who were employed at the school, deaf parents of children who attended the school, and others who were immersed in the

Deaf culture. Department of Rehabilitative Services has a Services to the Deaf unit in Oklahoma City that provided participants who were employed in the department and also were able to refer other interested individuals. Tulsa Speech and Hearing Association, Inc. is an organization that provides various services to individuals who are deaf. These services include, but are not limited to, job placement, peer counseling, interpreting, and information dissemination to individuals who are deaf. The researcher utilized "snowball sampling" in order to locate other individuals who were interested in participating in the study. Snowball sampling is the process of selecting a few people who in turn may be able to identify other individuals who may be good participants for the study (Gay & Airasian, 2000, p. 139).

The process of snowball sampling as well as contacting the School for the Deaf; Tulsa Speech and Hearing Association, Inc.; and State of Oklahoma Rehabilitative Services provided a balance of individual and cultural characteristics of the participants. However, some individuals were not willing to be interviewed. Since our society puts such a high premium on being self-supporting, some adults who were not employed were hesitant to be interviewed.

The purposive sample was kept small in order to be able

to emphasize the in-depth, thick, and rich descriptions of the participants perceptions (Gay & Airasian, 2000, p. 140). Therefore, in this particular study, the sample was limited to 10 participants who were gainfully employed and 10 participants who were unemployed. However, a limitation of the study was that individuals who were unemployed were hesitant to be interviewed. In addition, some persons who ascribed entirely to the Deaf culture felt that the interviews would be an intrusion into their culture. Therefore, this study is a report of the findings as they were. However, every effort was made to stratify the sample according to the following matrix:

Factors	Deaf Culture	Non-Deaf Culture
Employed	5	5
Not employed	5	5

The participants were not specifically asked about their major mode of communication, but it was observed through the face-to-face interviews which particular type of language they chose to use. In addition, those participants who were unemployed were not asked the questions about their particular jobs.

Procedures

Face-to-face interviews were conducted utilizing American Sign Language and voice according to the adult

participant's preference. These interviews were videotaped in order to obtain the facial expressions and body language as well as the signs the participants used. Interview questions were open-ended in order to capture the person's own words and enabled the researcher to collect data on unexpected dimensions of the topic that arose.

These videotapes were reviewed by the researcher who is a Certified Sign Language Interpreter. This researcher was assisted in collecting the data by Janna Byrd, a nationally certified interpreter for the deaf. Ms. Byrd holds a master's degree in Human Resource Counseling and has a Comprehensive Skills Certification from the National Registry of Interpreters for the Deaf. Ms. Byrd also reviewed the videotapes and acted as a consultant regarding the language usage of the participants. Therefore, the research utilized the logic of inter-rater reliability. In addition, other Nationally Certified Interpreters at East Central University in Ada, Oklahoma, were consulted during various times of the research. This process brought different skills and knowledge to the research.

The following interview questions were asked of the participants. However, the researcher allowed the participants to talk freely and expound upon those areas in which they felt most passionate. If the participants answered a question before it was asked, the researcher did

not repeat the question. For instance, if the participant stated they were born deaf during the initial part of the interview, the second question "How old were you when you became deaf?" was not asked. The questions regarding employment were not asked of the unemployed participants.

Interview Questions

1. Could you tell me a little about yourself?
2. How old were you when you became deaf?
3. What schools did you attend when you were young?
4. Was the experiences you had during your school years positive or negative? And how so?
5. What kind of communication was there in your home when you were younger?
6. Do you feel that your family has been a support to you in regard to your choice to live within the Deaf community or the hearing community?
7. What were some challenges you faced in order to get to where you are today?
8. Who were the people who influenced you the most in your life?
9. Do you feel that you are a part of the Deaf community?
10. How do you feel the Deaf community/Deaf culture influenced you in your life?
11. What training have you had for a job?
12. What are some of the experiences that you have had employed at jobs?

Summary

The face-to-face interviews that were conducted with the participants gave an avenue for these deaf adults to

tell their stories. Their stories were vivid and emotional. The data that was gleaned from these interviews was analyzed and coded. The information from the participants fell naturally into various themes. These themes were grouped around the participants' stories, the deaf life, and adult learning. Their voices were no longer silent.

CHAPTER 4

GIVING VOICE

The Participants

This study consisted of 20 interviews with self-identified deaf adults all of whom utilized American Sign Language. Even though all the participants utilized American Sign Language, some of the participants also utilized lipreading to enhance their receptive communication. The participants included 10 individuals who were successfully employed and 10 who were currently unemployed. The information gathered through the use of the videotaped interviews was analyzed according to themes and coded to describe various concepts of the deaf adults' learning experiences.

The instrument, Assessing the Learning Strategies of AdultS (ATLAS), was utilized to look at the information through an additional lens. The results of the ATLAS was beneficial in opening up dialogue with the participants in regard to their unique learning style and strategy. Participants were informed of the particular learning strategy that their answers on ATLAS indicated. The three groupings of Navigators, Problem Solvers, and Engagers were explained fully to the participants. The participants included 9 Navigators (44.1%), 5 Problem Solvers (27.8%), and 6 Engagers (28.1%).

All of the participants (see Table 1) are self-identified as deaf and utilize visual cues, speechreading, and American Sign Language as their major modes of communication. The participants ranged in age from 19 years old to 53 years old. All had completed their high school education. The participants included seven who have bachelor's degrees, and one who had completed a master's degree. Of the other participants, eight had a few college hours but had not completed a degree while one more participant completed a course at a technical school and holds a welding certificate. All of the participants were recruited from, or had some affiliation with, the Oklahoma School for the Deaf, Tulsa Speech and Hearing Association, or the Department of Rehabilitative Services (D.R.S).

The information gathered from the participants gave insight into their family life, education, language acquisition, and employment status. It is important to tell the stories of each participant and give "voice" to the participants (Gay & Airasian, 2003, p. 252). This is especially true for the deaf population. Their stories have been silent for too long.

Table 1: Frequency of Demographic Variables of Participants

Variables	Employed	Unemployed
Gender		
Male	3	4
Female	7	6
Age		
19 to 25	1	4
26 to 30	1	3
31 to 35	4	2
36 to 53	4	1
Education		
High School only	3	8
Bachelors	6	1
Masters	1	0
Certificate	0	1
School Attended		
Only Public school	3	2
Only Residential Schools	2	1
Combination	5	7

Unemployed Participants

Brenna is a 29-year-old, female, Navigator. Brenna was born deaf and raised in a hearing family. During her elementary school years, she attended public school in which there was a deaf education program. Even though Brenna's parents were hearing, they knew some sign language before she was born. When they found out that she was deaf, the

entire family, including the grandmother, rallied around and learned sign language. However, Brenna stated the family used mostly Signing Exact English (S.E.E.). Therefore, Brenna used mainly S.E.E. signs and lipreading growing up. When Brenna entered the 6th grade, her parents felt that it would be in her best interest for her to attend the residential school for the deaf. Therefore, she had the opportunity to be around other deaf students during her junior high and high school years and eventually graduated from the residential school. She now uses American Sign Language (A.S.L.) and ascribes to the Deaf culture.

Brad is a 24-year-old, male, Engager. Brad became deaf at 5 years of age. Since Brad was born hearing and born into a hearing family, he was able to acquire some language before he became totally deaf at the age of 5. Even though his family used only gestures and a few home signs when he was growing up, Brad became fluent in American Sign Language. Brad was fortunate in that the public school where he attended had a Deaf Education program with a teacher who had graduated from Gallaudet University in Washington, D.C. Brad transferred to the residential deaf school in the 4th grade and stayed there until he entered the 7th grade. At that time, Brad transferred back to the public school and attended mainstreamed classes with the aid of a sign language interpreter. Brad utilizes only A.S.L.

with very little lipreading skills. However, Brad is totally immersed into the Deaf culture and only associates with hearing people when necessary. Even though Brad has a certification from a technical school, it is difficult to find full-time gainful employment.

Carol is a 38-year-old, female, Engager. Carol is a quiet and shy mother of three. During the interview, Carol was subdued and became emotional discussing the struggles she has encountered in life. Carol's family is hearing. When Carol was born deaf, the news devastated her family. Carol stated that her father almost gave her way, but luckily her parents found a support group of parents with children who were deaf. However, Carol's parents opted that Carol would not learn sign language but would only be taught to speak and lipread. Even though Carol learned to speak, she indicated that she has missed out on so much and has lived a very lonely life. Carol learned sign language after she became an adult. At the current time, Carol utilizes speech and lipreading for communication with her family and those around her. However, during the interview, Carol wanted to use American Sign Language to communicate. She seldom has opportunities to associate with other adults who are deaf. Carol still feels that she does not fit with the Deaf culture or the hearing world. She struggles daily with communication and trying to understand the world around her.

Jerry is a 23-year-old, male, Problem Solver who is a college student. Jerry was hearing until the age of 5 when he started becoming deaf due to high fever from spinal meningitis. By 7 years of age, Jerry was totally deaf. However, by the age of 7, Jerry had acquired a good grasp of language and had good speech skills. As soon as he started to school in the 1st grade, he learned signs. Jerry stayed in a public school that had a Deaf Education program until he was 16. At that time, Jerry's parents decided that he should attend the residential deaf school. He graduated from the Oklahoma School for the Deaf (O.S.D.). Jerry is an animated and self-confident young man. Jerry's major mode of communication is American Sign Language, but he does have some lipreading skills with fairly good speech. Even though Jerry states that he belongs to the Deaf community, he also feels a strong connection to the hearing culture.

Karen is a 19-year-old, female, Navigator who states that she fits equally well in both the hearing and Deaf worlds. Karen was given early intervention services beginning at the age of three. During that time, the public school's Deaf Education teacher visited Karen on a weekly basis in the family home in order to teach her lipreading skills and some sign language. Between the ages of 6 to 13, Karen attended O.S.D.. Karen transferred back to a public school with an interpreter until she was 17-years old. At

that time, Karen said she wanted to go back to the residential deaf school in order to play basketball and graduate with her friends who were deaf. Even though Karen does not lipread and has no real intelligible speech, she appears to get along well in the hearing society. She is very personable and tries hard to communicate with anyone who is willing to try to speak to her. Karen is fluent in American Sign Language, but she has real difficulties believing that she is smart enough to learn in college or get a job. Karen's mother learned a little bit of sign language, but her father has no signing skills at all.

Lane is a 26-year-old, male, Navigator who was hesitant to be interviewed. Even though Lane utilizes speech, lipreading skills, and American Sign Language in order to communicate, he still feels communication is difficult. Lane graduated from a public school with only a few accommodations for his deafness. He stated that life was a struggle for him due to the fact that it was difficult to understand what was happening around him. Lane does not feel a connection with the Deaf culture or the hearing culture. Even though he has learned American Sign Language as an adult, he has not been able to assimilate into the Deaf community. Since he started learning American Sign Language as an adult, he was able to attend college and utilize an interpreter in order to obtain a bachelor's

degree. However, none of his family has ever learned signs in order to communicate with him.

Sandra is a 29-year-old, female, Navigator, and Sharon is a 25-year-old, female, Engager. Sandra and Sharon are sisters who are deaf and are fluent in American Sign Language. While both were born hearing, they started losing their hearing at a young age. Sandra started losing her hearing at the age of three but did not become deaf until around the age of 13 or 14. However, Sharon became deaf at nine months old. While Sandra learned a spoken language and attended a regular public school, Sharon moved away from home and attended the Oklahoma School for the Deaf (O.S.D.) at 5 years old. Sharon was able to continue at O.S.D. until she graduated from high school. However, after Sandra became deaf at 14, the entire family moved closer to O.S.D. so that both girls could live at home and attend O.S.D. Sandra and Sharon's family learned some signs but utilized mostly Signing Exact English (S.E.E.). Both girls ascribe to the Deaf culture and belong to the Deaf community. Even though Sandra became deaf at a later age, she eventually learned American Sign Language and identifies more with the Deaf community than with the hearing world. While Sharon went on to college and graduated with a bachelor's degree, Sandra only attended college for a couple of semesters.

Robert is a 33-year-old, male, Engager who was born

into a deaf family. In addition to his parents being deaf, Robert's brothers as well as several aunts, uncles, and cousins are deaf. Robert's first language was American Sign Language. During Robert's elementary school years, he attended a residential deaf school. However, during the 5th grade, he moved back home and attended a public school with the aid of sign language interpreters. Robert has strong ties to the Deaf community and Deaf culture. Robert is attending college.

Sherry is a 31-year-old, female, Problem Solver who became deaf around the age of 6 months. Sherry grew up in a hearing family that chose to forbid Sherry to learn American Sign Language. Sherry attended various public schools and attended Jane Brooks Oral School for a few years. All of the schools Sherry attended stressed lipreading and speech. However, at 16 years of age, Sherry was allowed to attend a residential deaf school. At that time, Sherry started learning American Sign Language, and she felt that her life changed completely. Even though Sherry did not have any opportunities to associate with other deaf individuals until the age of 16, she now prefers to associate mainly within the Deaf community.

Employed Participants

Carrie is a 40-year-old, female, Problem Solver who is a teacher at the Oklahoma School for the Deaf (O.S.D).

Carrie was born the third daughter in a hearing family. However, her family noticed that Carrie did not respond the way the older two daughters had. Her deafness was not detected until Carrie's 5th grade teacher noticed that Carrie did fairly well in school except on the spelling tests which were given orally. Her hearing loss was degenerative and Carrie thought everyone heard as she did. She had learned to lipread on her own and used a hearing aid. However, she was never given the opportunity to learn sign language all during her school years. She attended a public school with no accommodations for her hearing loss. Carrie indicates that her hearing family was supportive of her as an individual but not in regard to her deafness. Carrie did not learn signs until she graduated from high school and attended a community college that had a group of students who were deaf. The deaf students embraced Carrie, taught her sign language, and helped her through the journey toward her self-identity. Carrie embraces the Deaf culture. Carrie's major mode of communication is American Sign Language, but she does have good speech and lipreading skills. Even though she identifies with the Deaf culture, she complains that she is "not deaf enough for some people." In other words, the Deaf community has not welcomed her in as she had hoped. Because of her excellent speech and lipreading skills, she is still considered by many of the

Deaf as "hearing." At the age of 40, Carrie continues to feel discriminated against and isolated in some areas of her life.

David is a 34-year-old, male, Problem Solver who is currently employed at O.S.D. David's language acquisition began early in life as he was born deaf into a family with deaf parents. As far as he can remember, David has had good communication with members of his family. However, his parents wanted David to have many of the same opportunities as hearing children. Therefore, they decided to send David to the Jane Brooks Oral School. David's grandmother worked at the school, and it seemed a natural avenue for David to learn. David attended Jane Brooks Oral School from the age of two years old until the 4th grade. At that time, he transferred to a public school for half a day and attended the Jane Brooks Oral School for half a day. David graduated from the 9th grade at Jane Brooks Oral School and then attended the local public school full time with the aid of an interpreter. David uses American Sign Language fluently and feels a strong connection with the Deaf culture and the Deaf community.

Debra is a 25-year-old, female, Navigator who is employed by Wal-Mart. Her experiences are quite different from the other participants. Debra was born hearing and lived with her hearing parents in Barundi, Central Africa.

Debra became deaf at 9 years of age due to medication that she was given for tuberculosis. Even though Debra had acquired a language before she became deaf, it was difficult for her to learn to lipread after the onset of her deafness. During her growing up years, Debra not only faced educational struggles because there were no services for the deaf in her area, but she also experienced fear and anxiety because of the civil unrest and wars that were occurring in her country. During Debra's high school years, an American missionary and his wife worked with one of Debra's teachers to enable her to come to America to attend school.

Debra finally was able to come to America and attended O.S.D. Debra was overjoyed as she met other students who were deaf and had teachers that were also deaf. While completing her senior year at O.S.D., Debra was employed by the local Wal-Mart store. Debra is still working for Wal-Mart and hopes to continue her education someday at East Central University in Ada, Oklahoma. Debra did not have exactly the same experiences as other American individuals who are deaf. However, she feels a strong tie to the Deaf community and ascribes to the Deaf culture.

John is a 26-year-old, male, Navigator who is employed as an assembly line worker at a clothing factory. Generational deafness was the etiology of John's hearing loss. John was born deaf into a family that already knew

sign language. Even though John's parents were both hearing, John's grandmother was deaf. Therefore, since an early age, John has had language and did not feel that communication was a struggle. John attended O.S.D. from the 1st grade until he graduated from high school. O.S.D. was a positive experience for John, and he feels totally at home with the Deaf community. Even though John has limited lipreading skills, he indicates that he is comfortable with hearing people and does not mind writing notes in order to communicate. John has completed a bachelor's degree in accounting. He wants to continue his education in the next few years and obtain a master's degree in Business Administration.

Lori is a 44-year-old, female, Navigator who is employed at the Tulsa Speech and Hearing Association, Inc. When Lori's mother contracted rubella during her first trimester of pregnancy, the doctors warned her that the baby may be born deaf. Six months later, they had a beautiful baby girl who was deaf. Since Lori's parents were hearing and had no knowledge of deafness, they listened to the professionals and decided that Lori would learn to speak and lipread. Sign language was not an option for their daughter. Lori attended regular public school with no accommodations for her deafness except speech therapy until she was 16 years of age. At that time, Lori was allowed to

attend a residential deaf school. Lori feels that is when, "I found out who I was." Since that time, Lori has identified with the Deaf culture and the Deaf community. Even though she had good lipreading skills and good speech, Lori no longer uses her voice. Lori has a good sense of who she is and advocates for better services for the deaf in the state of Oklahoma.

Kara is a 34-year-old, female, Navigator who is a teacher at O.S.D. Kara's experiences are similar to Lori's. Even though Kara was born hearing, she became deaf at about two years of age, but it was not diagnosed until she was four. Since she had some speech and appeared to be able to communicate, her parents were hesitant to believe that Kara was deaf. Kara's grandmother, who babysat for her frequently, was the one who noticed the deafness and urged Kara's parents to pursue a medical diagnosis. Kara's parents were also given the advice not to let Kara learn sign language but to force her to lipread and learn speech. Therefore, Kara spent all of her school years in a regular public school with no accommodations except speech therapy. However, when Kara graduated from high school, she attended a college that had a Deaf Education program. Kara started learning sign language and immediately decided that she wanted to become a teacher for the deaf. She did not want other deaf children to experience the isolation, struggles,

and loneliness that she had experienced as a child. Kara has achieved her dream and currently teaches deaf children at O.S.D. Even though her family never learned sign language, Kara married a young man who was deaf and came from a family with other members who were deaf. Kara is now fully immersed into the Deaf community and feels a strong tie with the Deaf culture.

Lisa is a 34-year-old, female, Problem Solver who is employed in the Accounting Department at O.S.D. Even though Lisa's parents are hearing, they learned sign language as soon as they found out that their child was deaf. Lisa was diagnosed as being deaf at about 13-months old. Lisa, as well as her parents, started learning sign language soon after Lisa's deafness was diagnosed. At age four, Lisa started to a public school with a Deaf Education component. The residential deaf school was close to their home. Therefore, Lisa had opportunity for services from the residential deaf school but stayed in the family home. Lisa graduated from high school and went directly to the Rochester Institute of Technology. Even though it is a hearing college, there was a component that served the deaf. It was a perfect match for Lisa, and she graduated with a bachelor's degree. Lisa is now married to a man who is deaf and feels a strong identification with the Deaf community. Even though Lisa's parents were hearing, Lisa was allowed to

interact with other individuals who were deaf, and she feels a real part of the Deaf culture.

Luke is a 53-year-old, male, Engager who is employed at O.S.D. Luke spent most of his entire life at O.S.D. Luke was born deaf into a hearing family. Even though Luke's parents never formally learned sign language, they used some made-up home signs in order to communicate basic needs. Luke entered O.S.D. when he was four years old and attended O.S.D. until he graduated from high school. While in high school, the teachers liked Luke so well they let him help out in the audiovisual department. After graduation, the school superintendent offered Luke a full-time job in the audiovisual department. Luke has been there ever since. Luke has opportunities to visit with the children and teachers who are deaf as well as other deaf in the community. Luke feels the Deaf community has been his family and is totally immersed in the Deaf culture. He provides a much-needed role model for the younger deaf children at O.S.D.

Peggy is a 32-year-old, female, Engager who is a teacher at O.S.D. Peggy was born into a family that has a history of generational deafness. Peggy feels that communication was great in her family, but the struggles began when she had to attend the Jane Brooks Oral School. Since there were so many in her family who were deaf, her

parents wanted her to have the opportunity to learn speech and lipreading in addition to American Sign Language. Since her grandmother worked at the Jane Brooks Oral School, Peggy attended the school from the age of 3 until the 5th grade. At that time, Peggy was allowed to attend the local public school for half a day and Jane Brooks Oral School for half a day. After her 9th grade graduation from Jane Brooks Oral School, Peggy attended classes at the public school. While at the public school, Peggy was able to utilize interpreters for her mainstreamed classes and had the resource of a Deaf Education teacher. After her high school graduation, Peggy attended the University of Science and Arts School in Chickasha, Oklahoma. She holds a bachelor's degree in Deaf Education. Peggy has decided that she wants to teach children who are deaf in a residential school setting. She feels it is important to teach the children utilizing American Sign Language instead of strictly teaching them through lipreading and speech. Peggy feels strong ties to the Deaf community as well as the Deaf culture.

Louise is a 37-year-old, female, Navigator who is employed at the Department of Rehabilitative Services. She is a strong advocate for the Deaf community in the state of Oklahoma. Louise was born hearing but became deaf at the age of 4 due to high fever associated with spinal meningitis. Louise's parents were both hearing and chose to

communicate with Louise through lipreading only. Even though lipreading was the mode of communication at home, Louise was allowed to learn Signing Exact English (S.E.E) at the public school. However, the teacher for the hearing impaired was not fluent in sign language, and Louise stated there were many misunderstandings. Even though there were a few other students in the school who were deaf, the communication was not adequate.

After Louise graduated from high school, she attended a university that had a strong component to work with the deaf. Louise learned sign language and quickly became fluent. Even though she works with the deaf population, Louise feels a strong tie to the hearing culture. Even though she associates some socially with other deaf individuals, she chooses to live mainly in the hearing culture. Louise had already acquired a language when she became deaf at the age of 4. She has good speech qualities and chooses to speak when around hearing individuals. The onset of her deafness at 4-years old appeared to be a vivid memory for her. The significance of this memory is clear. Those individuals who became deaf after aurally acquiring English had a vocabulary with which they could use to understand what had just happened to them. The onset of their deafness appeared to be an important issue for most of the participants.

Onset of Deafness

The participants in the study had many experiences in common. One of their common experiences dealt with the onset of their deafness. To some, the onset of their deafness appeared to be important and discussing it brought up emotional issues for them. Other participants recognized the onset of their deafness as just a normal part of their lives and as an element of who they have always been.

The memories of the day an individual becomes deaf can be some of their most vivid memories.

> I became deaf one month shy of turning 4-years old with spinal meningitis. I remember being in the hospital with my hearing going off and on, off and on. And, I remember the nurse dropping a metal instrument on the floor, and I was waiting for the sound when it hit the floor, but I heard nothing. Then I heard the doctor talking. I do remember that. (37-year-old, female, employed, Navigator)

These vivid memories of becoming deaf can be especially traumatic to some individuals.

> My parents have two other children who are deaf. First my sister became deaf when she was 5-years old. She is now 32-years old. Second, my brother became deaf because of taking too much medicine. He had been really sick and needed medicines, and it made him become hard of hearing, and eventually he became deaf. In 1988, I became really sick. I had a terrible cough for about 1 year. They said I had TB. I was afraid of the medicine, and I cried and cried and told my parents that I didn't want to be deaf from the medicine. I cried and cried, "No, No". I had seen my brother and sister become deaf from medicine. However, my parents were afraid that I would die without the medicine, and so they made me take it. When I was 9-years old, my parents noticed that I did not hear them.

> That is how they found out I was deaf. My parents were very sorry that I was deaf, but there was nothing that could be done. (25-year-old, female, employed, Navigator)

Knowing the cause of their deafness appeared to help some of the participants have a vague understanding of what happened to them. However, others that did not know the etiology of their deafness still felt traumatized by the memories.

> I was not born deaf. I didn't lose my hearing until I was about 2-or 3-years old. They didn't notice that I had lost my hearing until I was almost 4. I was an early talker, or my dad said that I started to talk when I was about 8 months old. My grandmother first noticed that I was having trouble hearing. At first the doctor said I was fine. But my grandmother insisted they test me again. The second time I was tested I was sitting to the nurse's back. She would turn up the volume, and I was hearing nothing. She would increase the volume. Nothing. The nurse came around to me and screamed "you pay attention. You stop that, bad girl. Pay attention." So I started screaming, "Dad, Dad, that woman is mean." I couldn't hear from that time on. Wow! I remember that! (34-year-old, employed, female, Navigator)

Some individuals who are deaf are not as emotionally affected by the onset of their deafness.

> Well, some say that it was because my mom had German measles when she was pregnant with me. But it doesn't seem right because Mom says she did not have it. So the doctor said I could have gene testing done to see if it is generational, but I said it is not worth it. I don't want to do that. (38-year-old, unemployed, female, Engager)

> I don't know. I was a baby. Maybe 1-year old. The cause is unknown. (29-year-old, unemployed, female, Navigator)

> I was born deaf. I think I had a high fever. (19-year-old, unemployed, female, Navigator)

When their deafness is a result of generational deafness, it appears to be just a normal part of their family and heritage.

> I was born deaf because of generational deafness. People say deafness skips a generation. My brother was hard of hearing, but his hearing has gotten worse. My grandmother is deaf. (26-year-old, employed, male, Navigator)

> I was born into a deaf family. All of my mother's side of the family are all deaf. Even with all of the research from the family, we still haven't found out what was the cause of the deafness. (33-year-old, unemployed, male, Engager)

Whether or not the individual knew the cause of their deafness did not appear to be a major concern to them at this point in time. Deafness is just a part of their identity. Their experiences, their families, and their lives revolve around living in a quiet world and trying to understand what is happening around them. Of the total comments of the study, 8% revolved around the onset of their deafness. Engagers made up 29.2% of the comments while 45.8% were from Navigators. Problem Solvers made up the other 25.0% of the comments on the onset of their deafness. The breakdown on the comments on the onset of deafness was fairly consistent with the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). All three learning strategy groups felt the onset

of their deafness was significant to some extent. However, deafness appeared to be just one of the natural barriers in life to the participants. These deaf adults have had other barriers to overcome as they transitioned into adulthood.

Potential for Employment

The onset of deafness had an impact on the success of the participants in the study. Of the employed participants, six were born deaf. The other four employed participants became deaf around the age of four or five. Therefore, those four participants had some form of language before they became deaf. Of the unemployed participants, two became deaf around four years of age, and one more started losing her hearing around the age of four and became totally deaf by the age of fourteen.

All of the participants who had lost their hearing after acquiring a form of language had fairly intelligible speech. However, not all of those participants chose to use their voices. Since they could no longer hear their own voices, some of them felt that their voices sounded funny. Therefore, they chose not to use their voice around other people. However, all of those participants who had some intelligible speech indicated they did use their voices around their own families.

Those seven participants (four employed and three unemployed) indicated that they felt they had an advantage

over other deaf individuals who had been born deaf. They all stated they understood what voices and words were even though they could no longer hear or understand them. Even if losing their hearing after they acquired a language did not affect if they were employed or unemployed, all seven felt it affected their success in life. Therefore, the age of onset was significant in their perception of it affecting their lives.

> I was an early talker or my dad said that I started to talk when I was about 8-months old. So, because I was talking so early, they really didn't notice when I first started losing my hearing. (34-year-old, female, employed, Navigator)

> It was a very slow deterioration. Now, I am totally deaf. I can somewhat speak and read lips. But, my hearing aids don't help. (29-year-old, female, unemployed, Navigator)

Summary

In qualitative research it is important to have "intimate, face-to-face interaction with participants" (Gay & Airasian, 2003, p. 167). During the interviews conducted in this research, participants were encouraged to be candid and honest in their responses. Therefore, it was important to tell the stories of each participant. The participants all volunteered to take part in this study in order to share their learning experiences. Each participant indicated they wanted the information to help others. Therefore, each individual's stories, perceptions, and emotions were

recorded and described as accurately as possible. These emotional stories painted vivid pictures which described the lives of the deaf.

CHAPTER 5

DEAF LIFE

Deaf Community

Participants answered questions in a one-on-one interview format. Open-ended questions were asked that explored the participants' histories, learning experiences, experiences in the Deaf culture, and employment issues. During their childhood, these individuals had experienced struggles not only in their educational lives but also socially. As adults, it was their turn to make those important choices that could lead them to be more immersed into the hearing world or into the Deaf community.

The Deaf community consists primarily of individuals who are self-identified as Deaf. Deaf community is a term that describes the individuals who are deaf and choose to congregate together or associate with one another. Most of the people who choose to interact in the Deaf community utilize American Sign Language as their major mode of communication. On the other hand, Deaf culture is a broader term that entails other factors. Culture signifies "behavior patterns, beliefs, and all other products of a particular group of people that are passed on from generation to generation" (Santrock, 1995, p. 15). While many of the participants felt they belonged to the Deaf culture just because of their deafness, not all of the

participants felt that they were accepted into the Deaf community.

> Now I feel a part of the Deaf community, but not before. I did not fit. (29-year-old, unemployed, female, Navigator)

> It is hard to break into the Deaf community because I don't fit. Also, I don't fit in the hearing community. I understand about the Deaf culture, but I don't think I fit there. I am not sure. (38-year-old, unemployed, female, Engager)

> I feel like I belong to the Deaf community, but I feel like I'm more connected to the hearing community. (23-year-old, unemployed, male, Problem Solver)

> Well, in some ways I fit with the Deaf community. But, I can talk, and many times I do choose to use my voice. There are Deaf who don't like that. (34-year-old, employed, female, Navigator)

Even though some participants did not feel connected to the Deaf community, many acknowledged they were either influenced by the Deaf culture or had strong reactions to the Deaf culture.

Deaf Culture

There is a subculture within America comprised of adults who are deaf and of others such as their children or other family members and friends. This group is "bonded by a common language, as well as common mores and values" (Lane, Hoffmeister, & Bahan, 1996, p. 124). Other bonding forces in the Deaf culture are the athletic, social, and political organizations as well as the artistic expressions of the deaf. As with most other subcultures within a major

culture, they have experienced discrimination, heartache, and isolation. Even though they have a shared oppression, the individuals that make up the Deaf culture are very diverse (p. 124). Many individuals who are deaf have never been able to successfully enter into this subculture while others who are deaf prefer not to stay in this subculture.

The importance of belonging to the Deaf culture appeared in all three learning strategy groups. In this study, 16.4% of the total comments dealt with Deaf culture. While 44.9% of the comments on Deaf culture came from Navigators, 28.6% of the comments came from Problem Solvers, and 26.5% came from Engagers. This breakdown is almost exactly that of the distribution of the group (44.1%--Navigators, 28.1%--Engagers, and Problem Solvers-27.8%). Therefore, the importance of the Deaf culture carried the same importance in all three learning groups. That did not necessarily mean they felt a part of the Deaf culture, but they all saw the importance or significance of the culture to the group.

> I am involved with a few Deaf clubs. It's fun. I'm treated like one of the Deaf. I fit fine with the Deaf community. (24-year-old, unemployed, male, Engager)

> I feel very strongly connected to the Deaf community. With the Deaf church culture, I'm connected here in Oklahoma. (31 year-old, unemployed, female, Problem Solver)

> I am more comfortable with the Deaf community

> because I can visually take in all of the communication and know what is going on. I do not have to depend on the lip reading. (29-year-old, unemployed, female, Navigator)

Navigators are "proficient at using human resources" (Conti & Kolody, 1999, p. 10). Therefore, it would be natural for this learning group to be impacted by the Deaf culture and Deaf community. Problem Solvers too rely heavily on human resources and expert opinions. Therefore, in order to learn more about the Deaf culture, it would be plausible that the Problem Solvers would look to more experienced deaf adults for information (pp. 10-12).

Engagers are motivated by the enjoyment of the activity and engagement with others. Therefore, it is clear that Engagers would want to be involved with other individuals who are deaf in their learning. Engagers would especially want to interact with those with whom they can identify.

> Many people will call me big "D", not little "d". I'm very much in the Deaf culture. I'm supportive of the Deaf culture. I'm very much involved with Deaf culture. (33-year-old, unemployed, male, Engager)

The deaf adult's comfort in the Deaf culture depends on various factors. However, one important factor that impacts people's acceptance or rejection of the Deaf community or Deaf culture appears to be their educational experiences when they were young.

Educational Experiences

In America most families do not worry or labor over decisions of where to send their children to school. It is usually understood that the children will attend the school that is the closest to the family home. However, for the parents of children who are deaf, that decision is not easily made. Since nearly all parents of children who are deaf are hearing and do not use sign language of any sort, communication itself becomes a barrier within the family home (Wolkomir & Johnson, 1992, p. 34).

After a child has been diagnosed as being deaf, the parents are bombarded with many issues. There are conflicting expert opinions in diagnosis, treatment, education, and even attitudes about the Deaf community. Therefore, the children, as well as their parents, face many confusing pressures (Furth, 1973, p.43). Many questions face parents as they are confronted with the diagnosis of deafness. Will the children grow up in their own homes and attend public day school, or will the children live at the residential deaf school and come home and interact with their family only on weekends and holidays? Will the children learn manual sign language or only learn to lipread and speak? Even if a child is kept at home and attends the regular public day school, will there be a qualified interpreter or instructor of speechreading, or will the child just have to accept what is offered? Many school

administrators as well as parents may not know enough about deafness to make the most appropriate educational decisions for the child who is deaf.

Even if it is decided to allow the child to learn signs, most parents with deaf children never learn to sign adequately in order to communicate fully with their own child. This lack of communication in the home significantly hampers the child's opportunities in acquiring a language. The parents may decide that their child needs to learn sign language and attend a school for the deaf. However, the residential deaf school may be 2 or 3 hours from their home. In this case, the child will live at the school from Sunday night until Friday night and come home only on weekends, holidays, and summer vacations. The parents are forced to decide between education for the child and having the child in a normal family atmosphere.

A majority of the children in America attend only one or two schools in their life. Of the 20 individuals who were interviewed in this research study, only three of the participants were able to stay in the same school all during childhood. The other 17 individuals attended from 3 to 6 different schools. However, all of the participants agreed that their academic experiences consisted of both positive and negative aspects.

These positive and negative experiences did not stop

when class was over. The data revealed other areas that were common among the participants. However, one area was clearly more dominant than the others. That particular area was in regard to the struggles they had experienced growing up deaf.

Struggles

Over one-third (34.8%) of the comments from the participants described growing up deaf in a hearing world as a major struggle. These struggles were important for all three learning groups. Of the total comments on struggles in the study, 37.5% came from Navigators, 31.7% came from Engagers, and 30.8% came from Problem Solvers. The breakdown of the comments on struggles varied somewhat from the normal distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). Even though struggles were discussed by all three learning strategy groups, Engagers (31.7%) and Problem Solvers (30.8%) were slightly higher than their distribution in the group while the Navigators (37.5%) were slightly lower than their distribution in the group. Engagers are emotionally tied to their learning (Conti & Kolody, 1999, pp. 13-14). Therefore, it would be natural for the Engagers to be negatively affected by the struggles in their education. Problem Solvers tend to generate alternatives in order to create more learning options and value resource people who

share their stories (Conti & Kolody, 1999, p. 12). Therefore, Problem Solvers would want to share their stories of their struggles and how they overcame them. On the other hand, Navigators are more results-oriented and tend to try to look at the "big picture" (Conti & Kolody, 1999, p. 9). Navigators know that the struggles occurred, but in the big scheme of things they are not as significant now. They have been able to navigate through these struggles.

Navigators try to make sense of the world through schedules and organization (Conti & Kolody, 1999, p. 9). Therefore, it is easy to understand why the ambiguity of not always knowing what is expected of them because of the lack of communication is frustrating.

> I could understand some teachers, and others I could not understand. That was a real struggle for me. I would go home and try to figure out what they were saying. Some teachers I could not understand at all. It was the way they moved and the variety of how people talked. One English teacher in high school was a sweet woman, but I couldn't understand her. She had false teeth. They didn't fit right, and she was hard to understand. It was terrible. (34-year-old, employed, female, Navigator)

Engagers need to be able to interact with others in order to learn effectively (Conti & Kolody, 1999, pp. 13-14). When Engagers are deprived of the engagement with others, it is difficult to learn in the classroom as well as in other areas such as at home and in socialization settings. Engagers may not always understand that their

learning is tied to being connected with others.

> Well, it was very difficult for me because I had no friends. I know education is so important, and I needed that more than interactions with others, but I still felt very lonely inside. I felt very isolated at home and at school. (38-year-old, unemployed, female, Engager)

Engagers are passionate about learning and love the satisfaction of a job well done (pp. 9-14). Therefore, the Engagers will be frustrated and feel overwhelmed when they cannot feel they have learned what they are supposed to learn. However, if they are given the opportunity to interact, they are more able to learn.

> Well, mostly all I did was watch basketball games, chat with my friends, and had a lot of fun at O.S.D. I learned too. (53-year-old, employed, male, Engager)

Problem Solvers explain their reality through stories. Problem Solvers are always looking for alternatives in ways to learn and when they are not given those opportunities, it can be very frustrating for them. They want choices in their learning (Conti & Kolody, 1999, pp. 11-13).

> My school was a horrible experience for me. I would not wish that on anyone. I had no choice. When I went to the public school, I had no choice. I asked to make changes but was not allowed to. As soon as it was my turn, I went to a deaf program in college. I had begged my mother to allow me to go to a deaf education program. She told me that I could go when my grades improved. What's with that!! Wow! So there was no way to get there. All the way through school for 12 years I had no help, no tutoring, and nothing except for a half of the year of speech therapy class in the fifth grade. That was it. (40-year-old, employed, female, Problem Solver)

Other Problem Solvers that participated in the interviews had similar experiences. Experiences of those who attended the Jane Brooks Oral School in Chickasha, Oklahoma, appeared to be especially sad.

> I had to suffer punishment from the teachers for teaching the other students to use sign language. I was stood in the corner. My hands were slapped. In fact, my hands were taped to be restrained and often they were restrained behind my back with tape. Yes, it was very cruel back then. (34-year-old, employed, male, Problem Solver)

Even though others were not physically abused, their emotional hurts still linger. Many of the participants were emotional and cried as they told their stories.

Engagers enjoy the satisfaction of successfully completing the learning task (Conti & Kolody, 1999, p. 14). When Engagers cannot experience the satisfaction in a learning activity, they become frustrated.

> When I went to the oral school, I became very confused. My parents still signed at home, but when I would go to school there was just talking. I was puzzled by that. It was at that very moment that I became the "problem kid." I would be in trouble everyday at school because I was frustrated. I didn't understand oral communication. I was accustomed to ASL, and that was very frustrating for me. (32-year-old, employed, female, Engager)

Even if Engagers feel they are achieving some successes in school, they will still be impacted when there is lack of interaction and stimulation.

> Yes, I had a good education. I was able to succeed in the mainstream public school program

> after attending Jane Brooks School. However, I was very lonely. There was one other deaf student, but we were very alone. Although we had a good education, we felt alone. I didn't associate with the hearing students well. I had an identity problem. I wanted to be more involved but didn't fit in well with the students in the public school. I fit more with the deaf. (32-year-old, employed, female, Engager)

"The truism that each child is different and that each child's home and school situation is different is even more applicable to the child with a disability than to the average hearing child" (Furth, 1973, p. 43). Education for All Handicapped Children Act (PL 94-142) of 1975, later renamed the Individuals with Disabilities Education Act (I.D.E.A.), changed education drastically. This law required that all local school districts and states provide a free and appropriate education for every child with a disability starting when that child becomes 3 years of age. The laws also entitled every child an education in the "least restrictive environment" possible (Lane, Hoffmeister, & Bahan, 1996, p. 231). The passage of the I.D.E.A. did help in some instances. Parents of children who were deaf no longer felt they had to send their children away to a residential school in order to obtain services for their children. However, even with the implementing of Public Law 94-142, public schools have not always provided the best possible education for children who are deaf.

My parents were told not to let me learn sign language,

> so they put me in speech therapy classes immediately. I started attending school about the same time when Public Law 94-142 came into effect. There had been no deaf children in that school before me. I was the first one. They really didn't know what to do with me, and that's what happened all the way through my school experiences. I didn't have an interpreter because I couldn't sign. I didn't mind sitting on the second row of chairs. At that time, I was little, and I really didn't know the difference. I had to try to lipread everything. It was very hard. I often got in trouble for not paying attention. I would be scolded. They would say I was not paying attention again, and I would stand in that corner again. Sad, right? (34-year-old, employed, female, Navigator)

It was not only the education that suffered for the children. Their socialization was also limited. Whether the participants attended a residential deaf school, a total hearing public school, or a public school with a Deaf Education program equipped with interpreters, the story was the same. Most of the participants of the study indicated feelings of isolation and loneliness.

> In school I would follow along and enjoy with them, but I never really knew what they were doing. I participated in sports and that was just fine. But like on the playground or sleepovers, I hated them because the girls would want to sit in the dark and talk. I hated those times. High school was difficult because of communication. I was not included in a lot of things. I didn't know any different. (34-year-old, employed, female, Navigator)

However, if the individuals had the opportunity to attend the residential deaf schools, their socialization experiences appeared quite different. Luke attended only

one school during his childhood. However, he never moved from the school. He attended O.S.D. from the age of 5, graduated at 19, started to work at the school right after graduation, and has been there ever since. O.S.D. is his life. However, his experience is not typical.

Some of the participants moved back and forth from the public school to the residential school several times during their growing-up years. They needed certain things from both being at home and being at the residential schools. They needed that nurturing love and closeness from their families but also needed to be able to identify with others who were deaf and were experiencing the same life struggles. They needed to feel part of a family but also feel part of a group. Even though they felt this, many times it was difficult to express.

> I went to O.S.D. from 6 to 13, and then I came back home and went to public school until I was 17. Then I went back to O.S.D. and graduated at O.S.D. I wanted to be home with my family and show my animals with the 4-H club. I loved to do that. Deaf school was a lousy education. I really didn't learn much from O.S.D. They just gave me easy things to do. But the public school expected me to learn hard things, and I liked that. (19-year-old, unemployed, female, Navigator)

Other participants did not like the idea of being confined at the residential schools. They wanted the freedom to choose to interact with other types of individuals.

> The residential school thinks social interaction is enough for their lives. But it is not. It is tough information, but you need to learn it. If you fail, you should stay in the same grade. The deaf school makes it seem easy. They say you can learn that later, but that's not true. The residential schools are almost like in a prison. You have to stay right within those walls, that culture. Not allowed to go outside. I don't think that is good. (24-year-old, unemployed, male, Engager)

Another important aspect of the growing up years of the participants of the study was their involvement with their families. Of the 20 participants in the study, 15 attended a residential deaf school for at least 3 years during their growing-up years. Of the total participants, 5 attended only public schools, and 2 participants attended Jane Brooks Oral School while living in the family home. Whether a student attended a residential deaf school or a public school did not appear to influence the importance of family in their lives.

Family

Of the total comments from the 20 participants, 13.7% dealt with the importance of family. However, almost half (48.8%) of these comments on the importance of family came from Navigators while 26.8% of the comments came from Engagers and 24.4% came from Problem Solvers. The breakdown of the comments on the importance of family varied from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). While the Navigators

(48.8%) talked more about the importance of families, the Engagers (26.8%) and Problem Solvers (27.8%) talked less than their distribution in the group. Navigators tend to rely heavily on identification and use of resources (Conti & Kolody, 1999, p. 9). The Navigators saw the family as significant resources in their learning even though the families may not have been able to communicate fluently with them. However, to Engagers who are deeply affected by the relationship in their learning (p.13) and to the Problem Solvers who depend heavily on human resources and expert advice (p. 12), clear communication within the family would be of the utmost importance.

> Emotions have little to do with learning for Navigators. Unlike the Engagers, the Navigators are able to separate the message from the messenger. Although it is preferable to be involved in an atmosphere in which they are comfortable and which fosters their learning, they are able to rise above it and complete the learning task regardless of external factors. (Conti & Kolody, 1999, p. 10)

Navigators were able to separate the lack of clear communication in the home from the idea of family support.

> They have never rejected us. They were always willing to sit down and try to talk to us so we can understand each other. It was frustrating for them because my hearing was going down. They knew that they could not walk off and talk. They had to look at me before talking. (29-year-old, unemployed, female, Navigator)

However, for Engagers family support may be practically synonymous with communication and full interaction.

> It is very difficult. I wish parents had motivation for their children to understand English. Communication is so important. We both know many times parents are really not motivated or encouraging or supportive. That is what I am seeing in many different situations. (25-year-old, unemployed, female, Engager)

Problem Solvers are curious and inventive (Conti & Kolody, 1999, pp. 10-12). They looked for alternative ways of communicating within the family home.

> Really my parents did not know sign language. Now they could fingerspell sometimes, but I would have to read their lips. If you live with someone long enough, then you know their ways of communicating--what they want and what they are saying. (23-year-old, unemployed, male, Problem Solver)

Individuals learn important lessons from the interaction of the family. Albert Bandura's Social Learning Theory proposes that human beings learn through observation (Ashford, LeCroy, & Lortie, 1997, p. 67). Whether the activity to be learned is a language that is modeled or getting up everyday and going to work, the family of origin exerts much influence on the child. Most families provide a nurturing environment for their children. Also, the family is the basic unit that transmits the values, folkways, culture, and the language of it's particular group. However, this is not true for the deaf child (Schein, 1989, p. 106). Approximately 90% of deaf children are born into hearing families who have no previous knowledge of the Deaf culture, the Deaf community, or American Sign Language (p.

107). It is as if the child and the parents are from two different worlds. It is this difference that causes obstacles in the child's learning.

Learning begins at the earliest stages. Indeed, "learning is defined as a change in behavior" (Galbraith, 1998, p. 75). In fact, children learn the rules of behavior from overhearing conversations of their parents and other significant individuals within the family. However, the deaf child does not. Children generally learn to restrain negative behavior through verbal corrections from the parents. The deaf child does not (Schein, 1989, p. 112). This lack of understanding for both the parents and the child leads to many frustrating moments. For parents of deaf children, it is not always easy to find resources to learn American Sign Language and to learn about the Deaf community and Deaf culture.

Many hearing parents react to the situation by being overprotective of the deaf child. They tend to "smother" the child by keeping as much control as possible even in the school situation.

> This "smothering" reaction offsets parents' guilt aroused by their anger toward their deaf child; for other parents, overprotectiveness may be seen as compensating the child for the loss of hearing. A related reaction is overcontrol, the parents' attempts to minutely direct their deaf child. (Schein, 1998, p. 110)

Overprotectiveness of children who are deaf makes the

transition into adulthood with adult responsibilities even more difficult. An example of the overprotectiveness of some parents of deaf children was the experience of Carol. Carol was raised in a hearing family and sent to a public school where she learned to speak and lipread. Carol was never given the opportunity to learn sign language or interact with other deaf individuals when she was growing up. During the interview, her demeanor was downcast, and her expressions were sad as she discussed the difficulties that she had with her family. When asked if her family was supportive of her being involved with the Deaf community, Carol stated:

> Oh, no. I asked my father that question one time. He is very protective of me for some reason. He really didn't give me a good answer about why he wouldn't let me be involved with other deaf just that he was protecting me. But now it is hard for me to break into the Deaf community because I don't fit. Also, I don't fit in the hearing community either. I really don't know where I fit! I am searching for who I am. (38-year-old, unemployed, female, Engager)

This isolation from other individuals who are deaf when they are young can be devastating for the deaf child. It is in these developmental stages when individuals start to develop their self-identity. Developing a self-identity is a crucial step in becoming a productive adult (Berk, 1996, p. 584).

Of the 10 employed individuals who were interviewed for

the study, two came from homes where the parents were deaf and used American Sign Language. Of the other eight employed participants, only one family learned a form of sign language. That family learned and utilized Signing Exact English. The other seven families relied only on speech and lipreading for communication in the home.

Of the 10 unemployed participants of the study, only one came from a home with deaf parents. The other nine unemployed participants came from families with hearing parents. Of those nine families, six attempted to learn a form of sign language. However, most of the participants stated that even though the parents attempted to learn sign language, most could just sign enough to communicate basic needs and wants. None of those participants described the communication as being indepth or fluent. If the parents learned to sign, or even if they did not learn to sign with the individuals, the participants all expressed frustration with communication.

> Well, I mostly communicated with my brother. My mom tried to learn a little bit but not much. My Dad NOTHING! He would just sit and talk and expect me to understand. (19-year-old, unemployed, female, Navigator)

Of the 20 participants in the study, only 3 grew up in families with parents who were deaf. These individuals learned American Sign Language early on and felt that communication flowed easily in the home. Two of those

participants are now successfully employed at the Oklahoma School for the Deaf. It did appear that the importance of the family not only applied to the parents of the participants, but the extended family was also important.

> My grandmother was a positive influence in my life. She couldn't sign, but she was always there trying to communicate with me. She tried and tried to help me a lot and was there for me. I know that many hearing parents just leave their kids at school and forget them. I was very blessed to have a grandmother to help as much as she did. (32-year-old, employed, female, Engager)

> When I came to live with my grandmother and attend Jane Brooks School, she told me to look around and learn to overcome any problems that you face. I was taught self responsibility early. I started to work very young. If I wanted to go to the library or something, my grandmother would say first you have to clean your room, do the dishes, and then I will take you to the library. She would pay me or reward me with candy. (34-year-old, employed, male, Problem Solver)

The importance of the parents' involvement in their children's communication as well as their education is apparent.

> Once my parents found out that I was deaf, they decided to take sign language classes. My parents are strong advocates for education and were always looking for the best education for me. Although I did graduate from the residential school, I did attend a mainstream public school for certain classes that were not offered at the residential school. (34-year-old, employed, female, Problem Solver)

Some of the parents felt that education and family life were both important. Sandra and Sharon are sisters who both

attended O.S.D. When the time came that both girls required educational services for their deafness, the parents decided to move closer to O.S.D. in order for the girls to obtain the education they needed but also so that the girls would be able to stay at home and experience a normal family life.

This family life at home is quite different from the family life that children who attend residential schools experience. Since most deaf children come from hearing families with no sign language skills, the normal functions of the family as role models, shapers of personality, guide to behavior, and transmitters of their own culture appears to diminish (Schein, 1989, p. 131). In fact, many of the hearing parents as well as the children begin to feel an alienation from each other. During this time, the:

> Deaf community stands "in loco parentis." As substitute parent, it can fill a void in the lives of the majority of deaf children. It does so through contacts with Deaf houseparents in residential schools, with Deaf teachers, and with Deaf adults whom the children meet in planned or casual social encounters. (p. 131)

The deaf individual who is not permitted to associate with others who are deaf when they are young has difficulty developing an identity. When they reach adulthood, most deaf adults will seek out others with whom to relate or with whom to identify. Some of the deaf adults sought out role models for their lives.

In the study, 7.4% of the total comments dealt with role models. Role models appeared to be important for all three groups of learners. Of the total comments regarding role models, 40.9% of the comments came from Navigators, 31.8% came from Problem Solvers, and 27.3% of the comments came from Engagers. The breakdown of the comments regarding role models follow closely to the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). While the Navigators were down slightly (40.9%), the Problem Solvers (31.8%) were up slightly. Both Navigators and Problem Solvers utilize resources in their learning (Conti & Kolody, 1999, pp. 9-12). However, Navigators may use resources such as books, magazines, and the Internet whereas Problem Solvers tend to rely more heavily on human resources (p. 12). Mentors and role models would be valuable to the Problem Solvers. Engagers (27.3%) were close to their distribution in the group (28.1%). This would be quite normal for the Engagers. Role models would be important for the Engagers if they were able to have significant interaction with them (pp. 13-14). Communication would be the key here with the Engagers. Communication would not necessarily have to be sign language, but any attempt of the role model to engage and interact with the Engager would be accepted. These role models are important in that as individuals watch:

> Others engage in self-praise and self-blame and through feedback about the worth of their own actions, children develop personal standards for behavior and a sense of self-efficacy--beliefs about their own abilities and characteristics. (Berk, 1996, p. 20)

All three of the learning strategy groups look to human resources or role models for learning in one way or another (Conti & Kolody, 1999, pp. 9-15). Some of the participants looked to their parents or other family members as role models for their lives.

> My mother was my role model. I would ask her questions, and I learned a lot from her. (53-year-old, male, employed, Engager)

> My Mom influenced me more than anyone. When I was growing up, Mom was always at the school working. My Mom respects me. My Mom has never criticized me in raising my children. She has never said your children should learn to speak. She says they will be successful even though I'm deaf. (31-year-old, unemployed, female, Problem Solver)

> My Dad said you need to go to college. You can do whatever you want to do, but you have to go to college. He was proud that I wanted to become a teacher because he wanted to become a history teacher but the opportunity was not there for him at that time. (34- year-old, female, employed, Navigator)

> My brother influenced me the most growing up. He tried to communicate with me and help me. (19-year-old, female, unemployed, Navigator)

While some participants discussed family members as being role models for them, other participants described people who were deaf as role models. The role models who influenced them were successful in the eyes of the

participants. The employed participants talked about role models who were employed and the unemployed participants talked about role models who were unemployed. Success did not mean the same thing to the employed and unemployed participants.

> In my family really no one influenced me until I went to Sulfur to the Evangelical Training Center and met a friend. She has been the most influence in my life beside God. She's taught me a lot about Deaf culture, taught me a lot about A.S.L., and I learned a lot from her. I don't worry as much now that I have a deaf friend. (29-year-old, unemployed, female, Navigator)

> Well, I just thought of one deaf person that influenced me after I moved here to Tulsa. Frank Bagley. He was the president of O.A.D. He was a brilliant deaf man. He was very well versed in how to do things. I learned a lot from him. He was a role model for me. (44-year-old, female, employed, Navigator)

Most of the time, role models are thought of in a positive light. However, one of the participants described someone who he said was a role model in what not to become.

> Well, really my Deaf Education teacher influenced me the most, and you could say she was a role model in what not to do. She was my teacher and was supposed to help the deaf, but she was INEPT at teaching. She really did nothing to help us. So she influenced me in that I want to change things. I want to be able to teach deaf kids some day and be a positive influence or role model. (26-year-old, male, unemployed, Navigator)

Many times the Deaf community as a whole becomes role models for the deaf. This is especially true if the person is able to attend gatherings where other adults who are deaf congregate.

> I guess it is the Deaf community that is my role model. The Deaf community because I am always helping them, and they encouraged me to go to school. (23-year-old, male, unemployed, Problem Solver)

Potential for Employment

Deaf Culture

The concept of Deaf culture was important to all of the participants in the study. Even though not all of the participants felt a part of the Deaf community or even wished to be a part of the Deaf community, the idea of Deaf culture was significant. This significance showed clearly in the distinctions between the employed and the unemployed groups.

The employed participants understood about Deaf culture and the Deaf community, but only three of these participants stated they were totally immersed in the Deaf culture and community. Of those three participants, two came from homes with deaf parents. The other participant that totally ascribed to the Deaf culture and moved within the Deaf community had basically lived his entire life at the O.S.D. He had started to school at O.S.D. in the first grade, graduated from O.S.D., and has worked there since he graduated from high school. Even though the other two participants totally ascribed to the Deaf culture and Deaf community, they also felt they could be comfortable within the hearing community.

> We have a history of generational deafness in our family. My parents are deaf, and also I have four brothers and one sister who is deaf. But, now I am a mother with two boys that are both hearing. It is a challenge for me, because I am used to Deaf culture, but they have a hearing culture. Now, I am having to accept both cultures. (32-year-old, female, employed, Engager)

The other seven participants who made up the rest of the employed group all recognized the Deaf culture and Deaf community but were not totally immersed within the culture and community. Most of these seven participants all stated they could be comfortable within both the hearing and the Deaf communities. They knew they had a choice of which culture and community in which to belong. However, these seven lived and worked within the hearing community and "visited" within the Deaf community as they needed or wished.

> I have faith in myself. I just go ahead on with the normal, everyday, activities of life. I don't give up. I have to mix with both the hearing and the Deaf worlds. I just try to join both worlds the best that I can. I just live one day at a time. (44-year-old, female, employed, Navigator)

The ten unemployed participants were similar in that two of those participants totally ascribed to the Deaf culture and Deaf community, but the other eight were not totally comfortable in both worlds. For instance, two of the unemployed participants felt totally isolated from both worlds. Both of these participants had been raised in hearing families and had attended public schools with no

sign language intervention when they were young. They both learned to lipread and speak, but communication is still a struggle for them.

> I never felt as if I fit anywhere. I really don't know where I fit. (38-year-old, unemployed, female, Engager)

> It's hard, because I don't feel that I fit with the Deaf or the hearing community. (26-year-old, unemployed, male, Navigator)

However, the other unemployed participants had differing views. Some felt more comfortable in the Deaf world, and others felt more comfortable in the hearing world. Most were ambiguous about where they really fit.

> I would go with my hearing friends at night, and I would be with my deaf friends during the day. When I was done with all the activities with my deaf friends, I couldn't wait to go and socialize with my hearing friends. (29-year-old, female, unemployed, Navigator)

> I live in both worlds. I learned how to live in the Deaf world and the hearing world. (25-year-old, female, unemployed, Engager)

> I have a uniquely different life. A long time ago I would pick the hearing culture. I never wanted to be deaf, because I was scared, and I cried, and I was upset, because I didn't want to be deaf. I wanted to be involved in the hearing world. But, as I got older, I began to realize either world is fine. I can be immersed in the Deaf world, or I can be involved with the hearing world. (29-year-old, female, unemployed, Navigator)

> Really, I feel like I belong to the Deaf community, but I feel like I'm more connected to the hearing community. But, on the other hand, the Deaf community, is not really, how do I say this. They are different. They have ways that I don't want to follow, but I like to help them

anyway. (23-year-old, male, unemployed, Problem Solver)

I'm treated like one of the Deaf. I fit fine with the Deaf culture. (24-year-old, male, unemployed, Engager)

It is hard to break into the Deaf community because I don't fit. Also, I don't fit in the hearing community. (38-year-old, female, unemployed, Engager)

I feel that I live a little bit in both worlds. I am deaf, and so I understand a little bit about their life. But, I really don't feel real connected to the Deaf culture. (26-year-old, male, unemployed, Navigator)

Educational Experiences

Both the employed and the unemployed group of participants had various experiences in the public schools and the residential deaf schools. Three of the employed individuals only attended public schools during their school careers. While one of these individuals was given accommodations in the public school by teaching her Signed English and giving her significant speech therapy, the other two individuals were given no special accommodations. They were the only deaf students in their public schools. They had no opportunities to associate with other deaf individuals and were given no form of specialized training in any type of signed languages. Both were given speech therapy and taught to lipread. However, those two individuals both chose to learn American Sign Language after graduating from high school. Two of the employed

participants attended only residential deaf schools. The other five employed participants attended both residential deaf schools and public schools during their school careers. In addition to attending Jane Brooks Oral School for a few years, two of the employed participants were able to attend public school with specialized training in signed languages as well as having interpreters provided. The other five employed individuals spent at least three years in residential deaf schools where they learned American Sign Language. These five individuals also spent some of their school years in public schools with interpreters and Deaf Education teachers.

The 10 unemployed participants were more separated in their school years. For instance, two of the unemployed individuals only attended public school with no sign language accommodations. They were the only deaf students in their schools and were taught to lipread and given speech therapy. While one unemployed participant only attended a residential deaf school, the other seven participants attended residential deaf schools for at least three years as well as attended public schools. All eight of these participants were taught American Sign Language and also given interpreters while they were attending public schools. Both employed and unemployed groups had difficulty in their educational experiences. Both groups discussed struggles in

their school years.

> I would say I got in trouble more in reading class than any other class because of the reading circle. When reading did not go in line, the teacher just pointed at who she wanted to read. Then, she would ask me to pick up where they left off. I had no idea where they had left off. So, I got in trouble for that many times. I never told my parents. I would have to stand in that corner. (34-year-old, female, employed, Navigator)

> I wondered why I got in trouble all the time, why I was left out, why all of these different things happened, why I couldn't do what they were doing. Now, looking back, that was really negative. I was not happy. I didn't know why. (31-year-old, unemployed, Problem Solver)

> It was very difficult. I would have to write and write and write just to do any of the work. It was awful. I would just try to pay attention to the teachers and try to lipread them, but it was hard for me. I just had to endure it. (26-year-old, male, unemployed, Navigator)

The employed participants had a mixture of experiences with the Deaf and hearing worlds. The unemployed group were separated into mainly associating with the deaf in residential deaf schools or isolated in public schools with no contact with other deaf individuals.

Family

The importance of family life was significant in both the employed and unemployed groups. While some of the families learned a type of sign language, others did not. Of the employed participants, three came from homes where there was clear communication because there was other family

members who were deaf. The other seven employed participants came from hearing families. Of those seven families, six of the families did not learn any kind of signed language but insisted that their children learn to speak and lipread. Only one of the families learned Signing Exact English.

The unemployed participants had somewhat different experiences. Only one unemployed individual came from a family with other family members who were deaf. In that particular home, American Sign Language was used. The other nine unemployed participants came from hearing families. Of those nine families, six attempted to learn a form of sign language. However, the significance of this is that the families were not consistent in their language usage. Their signing was very limited, and many times they expected the deaf children to use speech and lipreading. They were ambiguous in their expectations of the kind of language their child used in the home as well as at school.

> I was able to do it my way and know my mom was there and that she was going to accept me and support me in whatever decision I made. They were both right there. If I was crying or I was upset, they were always right there for me. That made me who I am today. They were part of it. (29-year-old, female, unemployed, Navigator)

> She couldn't sign, but she was always there trying to communicate with me. She tried and tried to help me a lot and was there for me. (32-year-old, employed, female, Navigator)

> It was very difficult to communicate at home. Lipreading was hard! I had to try to lipread my whole family. (26-year-old, male, unemployed, Navigator)

> My Dad worried about me. He didn't sign. He didn't know anything about Deaf culture, but that was still Dad. (34-year-old, female, employed, Navigator)

> My whole family wanted to learn sign language. (29-year-old, female, unemployed, Navigator)

> They would just sit and chat, and chat, and chat. I felt left out at home. (34-year-old, employed, female Navigator)

Role Models

Role models were important to both the employed and unemployed groups. Those participants who were employed referenced role models who were employed. The unemployed participants talked about role models, but their role models were individuals who were unemployed. Even though those role models were unemployed, the participants admired them and viewed them as successful.

> My Mom was patient and accepting and motivated to help me get whatever I wanted to go ahead and be successful. She would never tell me I couldn't do something. She never told me that I couldn't be successful. She helped me all through my academic career. She taught me valuable information for my life. (25-year-old, female, unemployed, Engager)

> The O.S.D. coach. I played football and loved it. I had a great P.E. Coach. I wanted to be just like him. He was a great role model. He is a C.O.D.A. [child of Deaf adults]. He worked for many years at O.S.D. as a coach. He died a few years ago. (26-year-old, male, employed, Navigator)

Summary

Lives of persons who are deaf are diverse in nature. Even though they are diverse in some ways, adults who are deaf share some commonalities. The data in this study revealed four common areas in regard to life as a deaf person. These are the Deaf culture, struggles, family, and role models. However, the area that was clearly more dominant than the others was the area of struggles. Several times during the interviews the participants showed great emotion discussing the struggles they had endured to arrive at where they are today. Struggles comprised 34.8% of the total comments in the study. Of the total comments, 16.4% dealt with Deaf culture while 13.7% dealt with family issues and 7.4% dealt with role models.

The lives of many deaf adults are significantly influenced by the Deaf community. Their comfort within the Deaf community is directly related to various factors. One of those factors is the contact with the Deaf community or the lack of contact with the Deaf community when they were younger. This not only affects individuals in their growing-up years but also influences them in adulthood. This influence carries over into their learning as adults.

CHAPTER 6

ADULT LEARNING

Introduction

Adulthood is described as a time of exploration in the Eight Stages of Man by Erickson (1963). It would seem that adults want to understand their world more fully and their place in it. In addition, they are in a stage to explore where they have come from, where they are, and where they are going (Lively, 2002, pp. 9-10). It is at this time that deaf adults look to assess what is known and what needs to be learned in order to deal with life successfully. Since most of the educational institutions have failed them, they now look to each other for the help or learning that is needed. From learning about relationships to having babies and from finding a job to paying their bills, adults who are deaf turn to each other as resources. It is at this stage when successful deaf adults are needed so badly as role models and mentors. As they explore life in an arena of hearing people, persons who are deaf have the option of depending solely on others or becoming more self-directed.

Learning does not stop just because the adult leaves the academic arena. In fact, it appears to be a beginning of lifelong learning experiences. The term lifelong learning has been used extensively to indicate the process by which individuals develop knowledge and skills they will

use over their lifespan (Cross, 1981, pp. 258-259). This lifelong learning process entails the various adult learning concepts of (a) andragogy, (b) self-directed learning, (c) learning how to learn, (d) real-life learning, (e) transformational learning, and (f) learning strategies.

Andragogy

Characteristics of adult learners differ from those of children and adolescents. Research in the 1950s and 1960s began to show that adults do learn differently than children. The term andragogy was coined by early European adult educators to refer to how adults learn. Later Malcolm Knowles utilized this term in an article in the Adult Leadership in 1968 (Knowles, 1980, p. 42). Since that time, the term andragogy has been widely used when referring to how adults learn.

As Knowles (1970) pointed out in his assumptions of andragogy, experience is an important resource for adults in the learning process. This concept clearly fits for the deaf adults as they attempt to make a life for themselves. The experiences they have encountered growing up have a profound effect on them as adults. Many individuals who are deaf have been dependent upon either their parents, caregivers, teachers, or dorm parents. In adulthood, the deaf adult must assess their situation and decide on their own path. Not only must deaf adults decide what type of

learning is needed for their particular situation but also where they will go to learn what is needed.

Research in adult learning has found that adult learning opportunities exist in four types of settings: formal settings, informal settings, nonformal settings, and self-directed learning (Merriam & Caffarella, 1999, pp. 26-34). Formal settings are what one would envision in a structured classroom. Formal settings include organizations such as colleges, universities, vocational technical schools, museums, religious organization, museums, libraries, and industry training (p. 27). Informal settings are less structured learning environments and include group lessons, discussion groups, political groups, civic groups, garden clubs, book clubs, and other learning opportunities that occur informally. This learning is usually loosely structured and occurs in natural settings (pp. 32-34).

Many individuals utilize these formal and informal learning opportunities, and almost all are accessible to the general public. The Americans with Disabilities Act of 1990 was passed so that even persons with disabilities could have easier access to these institutions and organizations. However, most of these settings are still closed to individuals who are deaf. Because of the language barrier, persons who utilize American Sign Language or those who rely

totally on lipreading or writing notes back and forth have much difficulty in participating. While other adults with normal hearing can show up at a museum or church and participate, an individual who is deaf must first check to see if there will be an interpreter available. Also, funds are not readily accessible to pay for an interpreter even if one is found. Therefore, the adults who are deaf may look at nonformal or informal learning opportunities to learn what they need.

Nonformal learning settings are less structured and are mainly community-based and indigenous learning. Examples of the community-based settings would be at a local church, town hall, or community center when adults would gather to address a specific problem. Indigenous learning is related to the culture of the group and utilizes storytelling, oral traditions, and art forms to transfer knowledge (Merriam & Caffarella, 1999, pp. 28-32). An example of nonformal learning in Oklahoma is the Oklahoma Association of the Deaf (O.A.D.). This is a group of deaf adults who gather to discuss issues in Oklahoma that are pertinent to the Deaf community as well as to advocate for better services for the deaf. The O.A.D. provides opportunities to learn as well as gives individuals a way to volunteer their time to help others who are deaf.

Every three months I have meetings with O.A.D.,

> and my mom is very willing to help take care of my son. She doesn't complain about it. She doesn't complain about the hours that I have to put in because it is a voluntary position with O.A.D. (29-year-old, unemployed, female, Navigator)

Another example of nonformal learning settings that the deaf adults would utilize are the Deaf clubs. Deaf clubs are not only to socialize but also to discuss pertinent issues at hand. In addition, the Deaf clubs become an avenue to transfer knowledge of the Deaf culture to the younger deaf. It also becomes a way to train the younger adults leadership skills to be used within the Deaf community. However, not all adults who are deaf wish to participate in these clubs or may not live in an area where there is a Deaf club.

Some deaf individuals would like to participate in the Deaf clubs, but they do not have the opportunity. Various factors hinder the deaf adults' ability to participate in this type of learning. These factors include time constraints, distance, or even communication problems.

> I have tried to go to Tulsa and visit the Deaf club there, but I am always so busy, and it is so far. So I can't really get to visit there. (19-year-old, unemployed, female, Navigator)

> I have tried to go to some of the "silent dinners" at E.C.U. and tried to associate with some of the deaf. I try to go to the Deaf churches and try to learn signs from them. I don't get to go very often, but I have enjoyed them and learned a lot from them. (26-year-old, unemployed, male, Navigator)

Since it is many times difficult to participate in these various types of learning activities, the deaf adults must resort to informal or self-directed learning to attain the necessary knowledge to meet their needs.

Self-directed Learning

Informal or self-directed learning "occurs most often in learners' natural settings and is initiated and carried through primarily by the learners themselves" (Merriam & Caffarella, 1999, p. 32). This learning is so prevalent in most adults' lives that they may not even recognize it as a specific learning task. However, this self-directed learning is the most pervasive in all adults and even more so for the adults who are deaf.

Self-directed learning is a natural part of adulthood. As adults move from a state of dependence to independence, they have an inner need to be self-directed (Knowles, 1970). Self-directed learning is:

> A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (Knowles, 1975, p. 18)

The adult learners' life experiences become a rich resource for future learning. Through critical reflection of what has worked in the past or even more importantly what has not worked in the past, the adult is able to draw

conclusions about future decisions. The adult who is deaf has a greater need to be self-directed than those with normal hearing. There is less formal learning opportunities and sometimes less nonformal learning opportunities that the deaf adult has on which to draw. Therefore, when faced with new life circumstances and situations, the deaf adult must draw upon what is already known and what is familiar. They must become more self-directed.

> I tend to observe people around me that have been successful, so I would change my life to fit theirs. I am really a self-learner. For example, in interviews I would just answer the questions in the best way I could, but I was successful at that. (33-year-old, unemployed, male, Engager)

Through observation of other successful adults and reflecting upon what has worked for them in the past, some deaf adults can learn techniques that enable them to be successful. However, becoming more self-directed may not always be a personal choice but is a necessity.

> My mom kicked me out of the nest. I had to learn to do things on my own. It was not easy, but I did it. That's why I'm glad my mom is that kind of person. I was forced to learn on my own. (31-year-old, female, unemployed, Problem Solver)

> I have been an advocate all of my life. Fighting with the teacher for speechreading and all that stuff. I did a lot of that on my own. People need to appreciate the hard times to continue on. It helps to develop character rather than just being given everything. It is as if we are enabling people to become unsuccessful. (37-year-old, employed, female, Navigator)

It may seem that self-directed learning implies that

the learning is done in isolation, but this is not necessarily so. "Self directed learning usually takes place in association with various kinds of helpers, such as teachers, tutors, mentors, resource people, and peers" (Knowles, 1975, p. 18). Learners may come together in groups, but they all learn in their own unique way. In fact, self-directed learning actually indicates that each adult becomes:

> Ready to learn what is required to perform their evolving life tasks or to cope more adequately with their life problems, and that each individual therefore has a somewhat different pattern of readiness from other individuals (Knowles, 1975,p. 20).

The deaf adults in the study alluded to their experiences with self-directed learning. Of the total comments, 9.4% dealt with learning in self-directed ways. Of these comments, 53.6% came from Navigators, 25.0% came from Problem Solvers, and 21.4% came from Engagers. The breakdown of the comments of self-directed learning varied from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%)). The Navigators were up somewhat (53.6%) while the Engagers were down (21.4%). While Navigators are able to plan and chart a course for learning and pursue it (Conti & Kolody, 1999, p. 9), Engagers need to be engaged with the teacher and the environment (p. 13). Because of their natural preferences

for charting a course and following it, Navigators are well equipped for carrying out self-directed learning activities; this is especially so for deaf Navigators as a means of addressing the communication difficulties they face. Engagers who are deaf and because of the lack of communication cannot make that significant, emotional attachment, tend to give up. Problem Solvers (25.0%) were close to their distribution in the group. Problem Solvers would be able to self-directed in their learning as they like to be in control over their learning (p. 13). Problem Solvers thrive on creativity and being spontaneous (p. 13) so self-directed learning would be a natural fit for them. However, all three learning strategy groups utilized self-directed ways of learning to some extent. Many used these self-directed learning skills as they face real-life learning situations.

Real-Life Learning

Real-life learning or real-world learning is "relevant to the living tasks of the individual in contrast to those tasks considered more appropriate to formal education" (Fellenz & Conti, 1989, p. 3). Unlike the academic setting with clear cut answers to problems, real-world problems usually present in unexpected situations. Therefore, the adult must reframe the problems and construct a new reality in order to deal effectively with them. Adults generally

draw upon their previous knowledge and experiences, reflect upon these experiences, and acquire new knowledge for future responses (Galbraith, 1998, p. 74).

Often adults who are deaf have had difficulty in the academic setting and even had to "guess" at communication or what was really happening around them in the classroom. Many have experienced frustration in social situations when sometimes they "guessed" correctly at what was being communicated and other times they missed the point altogether. Their limited number of successes in learning situations has an impact on their future learning.

Real-life learning results in practical knowledge to be utilized by the learner (Fellenz & Conti, 1989, p. 3). This practical knowledge can then be applied to the adult's real-world problems. In an academic setting, the instructor may present a problem, and then show the student how to solve the problem in clear cut ways. However, in real-life learning situations, the learner may not even know that a problem exists. Therefore, one of the differences between real-life learning and academic learning is related to recognizing and defining the problem. In real-life learning situations, one may not know how to obtain the needed information or even what information is really needed.

When persons who are deaf have not had the opportunity to make decisions for themselves when they were younger,

decision making is more difficult as they enter adulthood. Those individuals who have had limited experiences with interacting in the hearing world may be at a disadvantage when making real-life learning decisions.

> In the residential schools, you have to stay within the group. That's why when they graduate they tend to stay right around there as a dorm parent. They just stay right there. They need to get out and experience life and find out what life is like. (24-year-old, unemployed, male, Engager)

Other adults who are deaf may not have difficulty with decision making even if they have attended residential deaf schools.

> I'm going to school to become a counselor. Before I came to school, I had experience informally helping other deaf people with their problems, and I did realize that I was good at it. People would tell me you would make a good counselor. I didn't really relate to that, and I didn't think that I was that kind of person, but so many people were telling me that. So, I thought since I like to socialize with Deaf, that is what maybe I should do. (23-year-old, unemployed, male, Problem Solver)

Real-life learning was apparent in the comments of the participants. In fact, 34.8% of the total comments in the study alluded to learning in everyday life. This was pervasive in all three learning strategy groups. Of all the comments regarding real-life learning 39.3% came from Navigators, 38.6% came from Problem Solvers, and 29.5% came from Engagers. This breakdown varied from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and

Problem Solvers--27.8%). While the Navigators were down (39.3%), the Problem Solvers were up (38.6%) significantly. Problem Solvers tend to generate alternatives in their learning process (Conti & Kolody, 1999, p. 12). Therefore, real-life situations are conducive to their learning strategy. Since real-life problems rarely have one definitive solution, Problem Solvers are able to utilize those strategies that they have sharpened to generate various solutions to their real-life problems. On the other hand, Navigators are more focused learners who like logical connections (p. 9). However, in real-life situations logical connections do not always make sense. Engagers (29.5%) were up only slightly from their group distribution. Engagers tend to seek out opportunities for the greatest amount of engagement in their learning environment (pp. 13-14). Real-life learning provides that perfect environment for true engagement. In adulthood, the Engagers will seek out those with whom they will be able to actively engage in their learning. As the deaf adults maneuver through their real-life learning opportunities, they need certain skills to learn effectively. In effect, they need to know how to learn.

Learning How to Learn

Children are not able to learn everything that they will ever need to know in adulthood during their elementary

school and high school years. Adults are bombarded with new concepts, new terminology, and new situations on a daily basis. Many adults never learn how to "learn with power in whatever educational situation we encounter" (Smith, 1982, p. 16). Education does not only happen in the classroom, but it occurs in everyday lives. Therefore, adults need to learn how to learn those important lessons encountered daily.

Robert W. Smith (1982) did extensive research on the learning how to learn concept.

> Critical are the intensely personal nature of the learning process and the demonstrated capacity of adults to assume partial or total responsibility for educating themselves. Research has proven the viability of the notion of learning style. The effects of prior learning and instruction on learning competence in adulthood are becoming increasingly clear. (p. 13).

If adults need to be responsible for educating themselves, it would be important for them to understand how they learn.

Smith (1982) asserts that adult learners must first decide what they need to know in order to accomplish the learning task. Once they have decided what they need to know, they must rely on their learning style or their preferences on how they go about their learning. Lastly, training or instruction in the basic mechanics of learning is needed. This training includes such things as reading, writing, and arithmetic (pp. 17-21). Therefore, the effects

of prior learning and instruction impacts the learning competence of adults as they encounter new situations.

The learning how to learn theory stresses that the basic skills of reading, writing, arithmetic, and listening are central to the learning process (Smith, 1982, p. 21). The adults who are deaf are already at a disadvantage just because they are unable to "listen." Statistics indicate most deaf adults who graduate from a residential deaf school have barely a 4th or 5th grade reading level (Garretson, 1995, p. 84). Therefore, in addition to being unable to listen and speak to the mainstream of society, they are also unable to understand newspapers, books, and other written material at the same level as most other high school graduates. Therefore, it would be natural to conclude that adults who are deaf may have a difficult time learning in real-life situations such as on the job.

Adults who are deaf may not recognize or not be able to label that they know how to learn, but it is evident in their lives. Of the total comments in the study, 15.8% described the learning how to learn concept active in their lives. Of these comments, 50.5% came from Navigators, 26.5% came from Engagers, and 23.0% came from Problem Solvers. This breakdown varied from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). Navigators were up significantly (50.5%) while the

Engagers (26.5%) and Problem Solvers (23.0%) were down. Navigators usually make good students in the structured classroom where the teacher charts the course and the students follow it. This type of learning fits their learning strategy techniques (Conti & Kolody, 1999, p. 9). Navigators tend to function well when there are planned and organized activities along with logical connections (p. 9). On the other hand, Problem Solvers love to generate their own alternatives (p. 12) which may not relate to success in a structured classroom. Engagers were also slightly down (26.5%) in the area of learning how to learn. Again, Engagers need to be emotionally connected with the learning task through interaction with the teacher and environment (p. 14). Communication problems lessen the opportunities for significant interaction for the Engagers.

Those individuals who are deaf and have good reading and writing skills appear to be at an advantage when they are learning in academic settings as well as in real-life situations.

> The secret to my success is two things. One, I could read very well. I was a very good reader which supported my English abilities. I had very good writing skills also. That's the fact. It really has helped me. (34-year-old, employed, female, Navigator)

Even though the basic skills of reading, writing, arithmetic, and listening may be difficult for the person

who is deaf, there have been many who have overcome these obstacles. The learning how to learn theory also asserts that in addition to those basic skills, there are other skills that are viable in the learning process. These are skills of:

> Overcoming personal blocks to learning, sustaining motivation, estimating progress, and assessing results --all skills that can be acquired or sharpened. (Smith, 1982, p. 22).

These particular skills relate to motivation that comes from within.

Intrinsic Motivation

Knowles (1998) indicates in his assumptions of adult learning that adult learners are internally motivated (pp. 64-68). This intrinsic motivation was evident in many of the responses of the participants in the study. For example, some of the deaf adults interviewed had an air of confidence about them as they visited with the interviewer. When they discussed their negative childhood experiences, their attitudes were that they learned from those experiences. They appeared to be able to rationalize that their experiences made them who they are today. This confident attitude also may have been a result of past successes which contributed to their self-esteem which comes from within.

Of the total comments in the study, 9.4% described an

intrinsic motivation as being important to their success. Of the total comments regarding intrinsic motivation, 53.6% came from Navigators, 25% came from Problem Solvers, and 21.4% came from Engagers. This breakdown varies from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). The Navigators (53.6%) are considerably higher while the Engagers (21.4%) are considerably lower. Navigators tend to work alone rather than in groups due to the fact they like to plan their own learning schedules and stick to it (Conti & Kolody, 1999, p. 9). They do not like to have others waste their time or slow them down. They like to be in control of their learning (pp. 9-10). However, Engagers thrive on the interaction of group work. It is the emotional attachment and relationships that help the Engagers learn effectively (pp. 13-14). Outside stimulation spurs on the Engagers rather than internal motivation. Navigators will learn for the sake of completing the assignment while the Engagers will learn for the fun and the feeling of accomplishment (pp. 9-14). Problem Solvers (25.0%) were fairly close to their distribution in the group (27.8%) because they tend to not only generate alternatives from internal motivation but also rely heavily on human resources. Problem Solvers can learn in structured settings but then need "time alone to think things through and experiment" (p. 13). Problem

Solvers may not like group work unless they can be the leaders (p. 13). It would be natural for the Navigators to comment more on internal motivation because they enjoy the flexibility of working at their own speed. Navigators like the flexibility so they do not feel they are wasting time. Problem Solvers like the flexibility of learning at their own speed which gives them time to grasp the abstract concepts and develop practical application alternatives (Conti & Kolody, 1999, pp. 9-13).

> Patience brings reward! (44-year-old, employed, female, Navigator)

> I never give up. I am stubborn. It's good that I never give up. (34-year-old, employed, female, Navigator)

> I was stubborn. I never felt as if I couldn't do it. (37 year old, employed, female, Navigator)

> When I start something, I want to finish it. If there's a problem, I want to fix it. (23-year-old, unemployed, male, Problem Solver)

Engagers are also intrinsically motivated to learn. However, their motivation is more connected with being engaged with others.

> I am very self-motivated and self-focused to be successful. I had one lady ask me how I became a leader. I told her I guess it is in my blood. My entire family has been leaders. It is just internal. (33-year-old, unemployed, male, Engager)

In addition to the intrinsic motivation described by the participants, a few of the deaf adults described

learning experiences that changed their lives forever. These transformational experiences (Merriam & Caffarella, 1999, p. 326-327) usually consisted of finally meeting and connecting with others from the Deaf community. These experiences transformed how they viewed themselves and altered their identities. These are examples of transformational learning.

Transformational Learning

Jack Mezirow and Paulo Freire are two major theorists who developed the transformational learning theory. While Freire's philosophy of education focuses mainly on social change outcomes, Mezirow looks at how individual adults make meaning out of their life experiences (Freire, 1993, Mezirow, 1991). Both of these educational philosophies certainly could be applied to the experiences of deaf adults. In this particular study, evidence of Mezirow's perspective of transformational learning appeared in the responses of the participants in the interviews. Mezirow (1991) indicates that adulthood is a time for individuals to question their belief system and engage in critical reflection. This questioning of their beliefs and then critical reflection is a universal phenomenon in all cultures. The three phases of the transformational learning theory are (a) critical reflection of ones's beliefs, (b) discourse to validate the insight the individual has

attained, and (c) action. When adults are faced with a disorienting dilemma, they have to engage in a self-examination of their beliefs about their past experiences. It is only when they recognize that others have experienced similar circumstances that they are able to explore options for forming new roles and a plan of action (Mezirow, 1991, 1995). This particular learning theory fits well with many of the deaf adults' experiences.

Some of these transformational experiences help deaf adults start to identify with the Deaf culture. When individuals who have been raised in a hearing world with little contact in the Deaf community meet another deaf adult, it is usually an important moment.

> I finally met a deaf friend. I learned a lot from her. She taught me A.S.L. and taught me about Deaf culture. I don't worry that much now. I found my identity and I have changed my identity. I am DEAF! Before I was kind of like a hearing person. I could speak and sign a little bit. But now occasionally I will speak, but now I primarily sign. (29-year-old, unemployed, female, Navigator)

> I feel like this is home and my family. I feel like I was born again into the Deaf culture. (33-year-old, male, unemployed, Engager)

> Wow! I saw at O.S.D. deaf teachers! The first time I went into the classroom I saw a teacher and he was deaf. He called my name. Wow! I asked him why did they give me a deaf teacher? Deaf are stupid. I didn't know deaf could have a degree, a future. Wow! That teacher changed my attitude and my life. (25-year-old, employed, female, Navigator)

> I was transferred to a residential deaf school with sign language. That's where I became totally immersed in the language. Wow, that's my world! I LOVED it! That was where I discovered myself. I was finally able to identify myself. I am Deaf! I could finally express myself, my personality. ME!! (44-year-old, employed, female, Navigator)

> I found myself at 16 when I attended the deaf school. That's when I knew I was DEAF. That is my world and that is my life. Period. (31-year-old, unemployed, female, Problem Solver)

Of the total comments in the study, 4.0% dealt with transformational experiences in their lives and what they had learned from these experiences. These transformational learning experiences were described by all three learning strategy groups. Navigators made up 58.3% of the comments, Problem Solvers made up 25% of the comments, and Engagers made up 16.7% of the comments. The breakdown of the comments on transformational learning differed significantly from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). However, transformational learning experiences only comprised 4.0% of the total comments in the study. Navigators' comments (58.3%) were significantly higher and Engagers' comments (16.7%) were significantly lower than their distribution in the group. Navigators are focused and intent on their planning and scheduling (Conti & Kolody, 1999, p. 9). Therefore, when some type of transformational learning happens that "knocks them off course", it would be truly

significant to them. This does not fit with their neatly planned out learning scenarios. On the other hand, Engagers are constantly looking for significant interaction with their environment and learning situations (pp. 13-14). Transformational learning is just part of the fun of their learning scenarios. Therefore, Engagers may see many opportunities for "transformation" whereas Navigators are not easily "knocked off their course". Problem Solvers (25%) were close to their normal distribution in the group (27.8%). Transformational learning occurred in their lives, but it became another alternative in their course for learning. These transformational experiences did not only happen when the participants were young but also happened after they became adults and went into training programs.

Training

For many of the participants, the training after high school was a much better experience than when they were younger. The participants consisted of seven college graduates while nine more have taken a few college hours or attended a technical school for a semester or two.

> College was a turning point for me. Yes, it was amazing. I discovered that I could succeed in classes. I learned a lot from college. It was a little bit of a challenge, but I have been successful. College was very positive. It was a good opportunity for me. College has been perfect, and I learned a lot of advanced vocabulary. (25-year-old, female, unemployed, Engager)

> I requested that the interpreter mouth everything because I didn't know the signs. But the signs were conceptual, and it was easier to lipread because some words look alike on the mouth. So, as long as the interpreter was mouthing everything that the teacher said and signing conceptually, then I could lipread because I had a photographic memory. I could remember everything that was signed. When I read the notes, it was easy. To be honest, college was much easier for me than high school. Well, because in high school I had to read the teacher's notes, read the book that they were preparing to lecture from before they lectured so I could lipread them, and make sure that I could follow everything they were saying. (37-year-old, female, employed, Navigator)

> I went to Rochester Institute of Technology really four and a half years. They had a co-op job program that required six month in addition to the college training so that delayed graduation a little bit. But I got an accounting degree. (34-year-old, employed, female, Problem Solver)

However, not all of the participants had the opportunity to attend training after high school or have chosen not to go into further training. Some adults who are deaf may feel intimidated by the classroom since they had such negative experiences in the past.

> I think I want to go to college, but I don't know about interpreters or anything to go about going to college. (19-year-old, female, unemployed, Navigator)

The struggles continue due to the fact that fewer successes lead to low self-esteem.

Post high school training was commented upon by all three learning strategy groups. Of the total comments in the study, 6.4% dealt with adult training issues. Of these

comments, 47.4% came from Navigators, 31.6% of the comments came from Engagers, and 21.1% came from Problem Solvers. The breakdown of the comments regarding training differed slightly from the distribution of the group (Navigators--44.1%, Engagers--28.1%, and Problem Solvers--27.8%). Navigators (47.4%) may have always functioned fairly well in a structured classroom due to their liking organized activities and schedules (Conti & Kolody, 1999, p. 9). However, now that they are in post high school training, the structure is not quite so rigid. Some Navigators may do fairly well in this situation because they can structure the learning for themselves while other Navigators may find the transition a little unsettling. Engagers (31.6%) may find the new found freedom and new environment of post high school training more stimulating. The students in college may be more open to try to communicate with them. In addition, the Engagers will have more opportunities to seek out new possibilities for engagement in their learning (pp. 13-14). Problem Solvers (21.1%) are lower than their distribution in the group (27.8%). This may be due to the fact that there are too many training opportunities out in real life. Problem Solvers' abilities to consider various solutions and options (p. 12) may actually get in the way of their making definitive plans for specific training. There is just too many training options, and they all look

interesting!

Potential for Employment

Adult Learning Characteristics

The employed participants as well as the unemployed participants utilized the adult learning principles of self-directed learning, real-life learning, and transformational learning in their lives. In fact, these are characteristics utilized by all adult learners including those who are deaf. Individuals who are deaf have learned to be more self-directed in their learning due to their communication difficulties. The lack of clear communication between the teacher and the student has caused many barriers in the learning process for the deaf. Therefore, they have been forced into being more self-directed. Self-directed learning enabled the deaf adults not only to be successful in employment but also to be able to have success in other real-life settings.

Internal Motivation

The major difference between the employed and the unemployed participants was in their comments on motivation. The employed participants were emphatic in their comments which represented internal motivation. The employed participants are proactive. Almost all of the employed participants used strong words such as "stubborn" and "I never give up". They are internally driven. In addition,

they are self-confident, patient, and persistent. These comments cut across all three learning strategy groups.

> Faith and hope and courage. Courage is another reason for my success. I see deaf people here in America who have opportunities to do what they want. If I work hard, I know I can make it. (25-year-old, female, employed, Navigator)

> I think my secret would be that even though I fail at things, I keep going. I really never give up. (32-year-old, female, employed, Engager)

> The secret to my success is motivation. You can't be lazy. Many people say they have a goal in life, but they don't want to work. (26-year-old, male, employed, Navigator)

> The inability to quit! The inability to quit! I'm too damn stubborn to give up. You're not to give up! No, I won't give up. I will not give up! (40-year-old, employed, female, Problem Solver)

The unemployed participants were much more passive and reactive in their comments and used words such as "I try to encourage myself" or "I try to fix things". The unemployed participants also had lower self-esteem and made comments such as "I am not smart enough". Their attitudes were more of these things happened to me, and I cannot do anything about it. The unemployed participants used more terms such as being lonely and sad more often than those who were employed.

> I have to encourage myself. My family encourages me only in learning English, learning new words, having a good life. But that is not who I am. I am DEAF! But, they don't understand. They only want me to be involved with hearing people. (26-year-old, male, unemployed, Navigator)

> Also, I look at myself in the mirror, and I really don't think I am smart enough. It has been a real struggle for me! (19-year-old, female, unemployed, Navigator)
>
> I've never really had friends. I felt lonely inside when I was at school and at home. I still feel really lonely inside. (38-year-old, unemployed, female, Engager)

Learning How to Learn

Another major difference in the employed and unemployed participants came in the area of basic reading and writing skills. Several of the employed participants made reference to the fact that they were very skilled in reading and writing. They talked about these skills with real pride in their mannerisms.

> I have a language. Some grammar is a problem, and some vocabulary I have to look up in the dictionary to find the words. Because of my interaction with people, I am able to learn new vocabulary words and to read the newspaper and learn new words. But, I had a language before I became deaf. We need to talk to parents who find out that they have a deaf child. They need to know that they can succeed as long as they are given a language opportunity before they reach four years old. The secret to my success is my ability to read. (37-year-old, female, employed, Navigator)

Not one of the unemployed participants mentioned their abilities to read and write. However, they all did mention the struggles they had in school. The unemployed were much more interested in being able to survive in life by being accepted within a group. It really did not matter if it was the Deaf community or the hearing community. They had a

hunger to be accepted somewhere.

Summary

Deaf adults utilize the adult learning concepts of andragogy, self-directed learning, real-life learning and learning how to learn in their everyday lives. Deaf adults' learning experiences in childhood are very diverse. However, when individuals move into adulthood, they take on the same characteristics as other adult learners. Even though deaf adults learn through a variety of ways, the basic skills of reading, writing, and arithmetic are still vital to their learning process. When these basic skills are deficient, adult learners have difficulty within the academic arena as well as in real-life learning situations. This difficulty in learning in adulthood is significant in that it impacts their ability to function successfully in society. It alienates them from the workforce as well as continues to alienate them from others with whom they would like to associate. The walls that were so strong in childhood loom still larger now. Therefore, changes must be made in order to bridge the gaps between the hearing society and the Deaf-world.

CHAPTER 7

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

America is faced with many struggles in this age of economic depressions, terrorism, rampant drug abuse, and unemployment. America needs a trained and competent workforce to move the country into better economic times. Statistics in the last few years have shown only a 5.4% unemployment rate for the general population but a staggering 70% unemployment rate for Americans with disabilities (Executive Summary, 2001). Statistics also indicate that deaf and hard-of-hearing individuals are unemployed at even a higher percentage rate than persons with other disabilities (Capella, 2003, p. 39).

The federal-state vocational rehabilitation (V.R.) program under the direction of the Rehabilitation Services Administration (R.S.A.) is commissioned to assist persons with disabilities to obtain, or retain, employment. For the past 75 years, this federal-state program has improved the lives of persons with disabilities by providing the services needed for that population to obtain gainful employment and thereby improving their lives economically. However, it has been noted that even though services have been provided, many of the participants in the program never obtain or retain employment. In fact, according to statistics in

1997, 61% of the participants in the VR program obtained employment while 39% did not. Further investigation shows that during the last 10 years the number of participants in the Vocational Rehabilitation programs who are deaf or hard of hearing has increased, but the total number of these participants being successfully rehabilitated has decreased. This has caused concern for the Rehabilitation Services Administration (R.S.A.). Therefore, the R.S.A. has called upon the state Vocational Rehabilitation agencies to examine their policies and procedures in their work with deaf and hard-of-hearing consumers (Capella, 2003, pp. 39-40).

It is not only the federal-state vocational rehabilitation programs that have been struggling with understanding the needs of the deaf and hard-of-hearing population. America's educational system has pondered, contemplated, and debated these issues for years. While passage of the Education for All Handicapped Children Act (PL 94-142) of 1975, which was later renamed the Individuals with Disabilities Education Act, has helped, there are still gaps in the education of children who are deaf. While the language of the law describes in detail the rights of every child to have a free and appropriate education in the least restrictive environment, not all children who are deaf have that opportunity due to a lag in language acquisition. This lack of learning a language early on affects their learning

while they are children and continues to affect their learning in academic settings as well as real-life situations in adulthood.

The purpose of this study was to listen and give voice to deaf adults as they described their perceptions of their learning patterns. Videotaped interviews were conducted in order to obtain information from the deaf adults themselves to try to understand more clearly their struggles in learning. The study addressed how adults who are deaf acquire the knowledge and skill to learn effectively in specific learning situations, deterrents to learning that adults who are deaf overcome in order to get prepared for work, the learning strategy preference of adults who are deaf, and how the Deaf culture contributes to the learning of adults who are deaf.

This study utilized a naturalistic or descriptive design in order to obtain and analyze qualitative data for the purpose of describing the perceptions of learning patterns among adults who are deaf. Face-to face interviews were conducted with 20 deaf adults between the ages of 19 and 53 years of age. This purposive sample was obtained through contact with Department of Rehabilitative Services, Oklahoma School for the Deaf, and Tulsa Speech and Hearing Association, Inc. All of the participants were self-identified as deaf and utilized American Sign Language in

order to communicate. The participants consisted of seven college graduates while nine more have taken a few college classes or technical school classes. The other four deaf adults have a high school education.

The face-to-face interviews were conducted in American Sign Language and videotaped. The videotapes were then viewed and transcribed. The researcher was assisted in collecting the data and transcribing the videotapes by Janna Byrd, a nationally certified sign language interpreter and university instructor. Therefore, the logic of inter-rater reliability was utilized in the study. The data was analyzed and coded according to common themes. These common themes were categorized and became the findings of the study.

Summary of Findings

The findings of the study were arranged into three areas: Giving Voice, Deaf Life, and Adult Learning. Each area was dedicated to the responses in the interviews which detailed specific categories which provided insight into the participants' individual lives, families, Deaf culture, and diverse learning experiences. These responses were put into quotes of the individuals to enable their stories to come alive and give voice to the participants.

Giving Voice

The stories of the participants were the focus of the

Giving Voice area. It is important in a qualitative study to "give voice" to the participants (Gay & Airasian, 2003, pp. 240-241). This is especially true in a study of deaf adults. Their stories were diverse and gave insight into their experiences from their earliest memories up through their adult learning experiences. Assessing the Learning Strategies of AdultS (ATLAS) was administered to each participant at the beginning of the interviews to obtain information regarding their individual learning strategy. The results of the ATLAS were used as a catalyst to open up discussions in regard to the specific learning experiences of the participants.

As the interviews progressed, open-ended questions were used to allow the participants to expound about their lives. Many of the participants began the conversations with descriptions of the age they became deaf and the etiology of their deafness. The onset of the participants' deafness was important to some but irrelevant to others. Some participants casually stated they were born deaf, became deaf at a young age, or were deaf because of generational deafness. However, others explained in great detail the day, or days, when they either lost or started losing their hearing. For one woman, it was a progressive condition, and she did not realize that everyone did not hear the way she heard. One theme that was common among those who lost their

hearing after the age of 3 or 4 was that they already had a language. They were able to understand what words were. Even if lipreading was difficult for them, they understood what audible language and words were.

Whether the onset of deafness was from birth or later on did not matter to the participants at this point in time. Not one participant mentioned being sorry they were deaf or wished to be hearing. Their deafness is just a matter of who they are and is a part of their life.

Deaf Culture

The area of Deaf life focused around the areas of Deaf culture, family, struggles, and role models. These four areas also were the factors that either enabled the deaf adults to become comfortable within the Deaf community or feel alienated from it.

While people with normal hearing may view a person who is deaf as having a disability or handicap, many of the deaf view themselves as just a part of the Deaf culture. Culture can be viewed in various ways. One way to view Deaf culture is as:

> A system of beliefs and activities by a group of individuals who are linked together by ethnicity, religion, or language. One's culture underlies how individuals understand the world, their way of looking at things, their way of talking about things, their way of doing things, their system of beliefs, their plan to live by, and their way of identifying themselves. Objects people use in their daily lives and how they interact with them

> are also culturally defined. (Humphries, Padden, & O'Rourke, 1996, pp. 8-9)

While American Sign Language is a significant part of the Deaf culture, it is not the only common thread that binds the people together. "While the language is important to the maintenance of the culture, it is the culture that is responsible for the life of the language" (Humphries, Padden, & O'Rourke, 1996, p. 9). The language is used as a medium for their folktales, jokes, and stories of "who they are, where they come from, what they believe in, and how they plan their lives" (p. 11). However, the Deaf culture also consists of local gatherings such as Deaf clubs in many areas. In addition, there are local and state chapters of the National Association of the Deaf which advocate in various ways for the improvement in the quality of life for the deaf. Thousands of deaf adults belong to these social and political organizations (p. 13). These various organizations have helped to unify the deaf population in certain instances.

Some deaf adults feel a strong solidarity with the Deaf culture. However, many individuals who are deaf have a difficult time entering into the Deaf community or feeling comfortable within the community. There are others who are ambiguous about where they belong and some declare they are bicultural.

Whether the participants embraced the Deaf culture or did not, did not lessen the importance of the concept of Deaf culture to the individual. The deaf adults recognized the importance of being able to choose into what group they associated. Deaf culture is significant in the fact that it appears to give deaf adults a sense of who they are and in what group they belong. Even if they do not feel a strong connection to the Deaf community or feel immersed in the Deaf culture, it is still a point of contact. They know there are others in the world who are just like them. This is a comforting thought. They "belong" to something larger than themselves. Their comfort within the Deaf culture or Deaf community is tied somewhat to how their families view their deafness.

Family

The deaf adults' families of origin are important to each of them. The comments on family brought up emotional issues with many of the participants. Only three of the participants were born into families with deaf parents. These three participants felt that communication was normal in the home and felt secure in their relationships with their families. The 17 other participants had mixed emotions about their family lives.

During the interviews, many of the participants became emotional and cried when discussing their families. Their

signs portrayed their thoughts about their families, but their tears portrayed their feelings. Family was important. The participants learned from their families. Some of the participants discussed how they modeled their own lives after specific family members.

Role Models

Role models is another way the participants learned in their lives. Many times, the participants commented about their families as being role models for them. Other participants discussed a special deaf friend or deaf teacher who was a role model to them. One male participant discussed one of his teachers as being a role model in the opposite sense of the word. She was a role model in how not to teach deaf children. He was so impacted by her negative treatment of him that he now wants to be a teacher for the deaf so other deaf children will not have to suffer as he did.

These role models were important in the participants' learning process in that they were able to identify with that particular person in some way. The participants especially felt connected to the role models if they could identify with them. This concept links to the Social Learning Theory and the precept that human beings learn through observation of others with whom they identify (Jacobson, 1996, p. 20). Even though some family members

were unable to communicate verbally with the participants, they were still role models. They influenced their children by their actions and caring attitudes.

Deaf adults feel strongly about the importance of deaf role models. Adult deaf role models are needed as mentors for the younger deaf individuals. The importance of role models for younger deaf individuals is clear. However, even if the persons who are deaf had adequate role models, it did not exempt them from struggles they experienced in the hearing world.

Struggles

Struggles dominated the comments of all the participants. These struggles dealt with educational struggles as well as socialization struggles. All of these comments brought visible signs of pain to the expressions and eyes of the participants as they described their experiences. These struggles came in the form of cruelty at times as one gentleman described how his hands were taped behind his back at school to prevent him from signing. Another young woman was labeled the "problem kid" when she did not understand what the teachers wanted her to do. Misunderstandings were commonplace in their lives. One of the threads that ran through the comments on struggle was that many times they were singled out as being unruly and disobeying. They were the children who get in trouble for

not paying attention. All the while, this was mainly due to their inability to hear and communicate.

While some participants appeared to let the struggles consume their lives, others used these struggles in a positive manner to mold them into who they are today. These memories of their struggles are a normal part of their lives. Many times the participants described their struggles as lessening after high school. Those participants who attended college or a technical school after graduating from high school had more positive experiences in their higher education and training programs than in high school. However, even as adults, many had difficulty learning what was needed in everyday life.

Andragogy

The adult learning section focused on the areas of andragogy, self-directed learning, real-life learning, internal motivation, transformational learning, and learning how to learn. Deaf adults take on the characteristics of the adult learner as they transition into adulthood. The participants in the study described ways they dealt with life on a day-to-day basis which clearly portrayed the adult learning concepts.

Andragogy is a term used to differentiate adult learning from the way children learn which is called pedagogy (Knowles, 1970). While all adults have certain

adult learning characteristics, not all adults are able to maximize these characteristics through learning opportunities. Many times deaf adults are unable to take advantage of many learning opportunities in formal settings such as museums, libraries, and extension classes. Even though most colleges and universities now provide interpreter services, there are times when interpreters are ill or unable to make it to the classes and substitutes are difficult to find on short notice. Even nonformal settings such as churches, community classes, and local meetings are not easily accessible to most deaf adults. Therefore, the adult who is deaf must usually rely on self-directed learning in their quest for knowledge. However, since research bears out that most deaf adults graduating from high school read far below the national average, it is difficult for the deaf adult to take advantage of written materials in helping them learn (Dolnick, 1993, p. 40).

Knowles' (1970) assumption that adults have a vast reservoir of experiences on which to draw is certainly applicable to adults who are deaf. However, it would be noted that many of the experiences the deaf adults have faced have been negative experiences. This is especially true in regard to their educational experiences. Even their socialization experiences have been tainted by the lack of communication among their families and their peers. This

lack of communication also colors their perceptions of those in authority. Those individuals may not have always had the deaf adults' interest at heart when choices were made in some areas.

Another of Knowles' (1970) assumptions of adult learning deals with the idea that adults are more problem centered in their learning than subject centered. This applies to the adult who is deaf. As deaf adults encounter real-life situations, they must look at various ways to solve the problems they are faced with on a day-to-day basis.

Real-Life Learning

Real-life learning is more concerned with the actual tasks of living that individuals face on a daily basis than with tasks related to formal education (Fellenz & Conti, 1989, p. 3). Since these real-world problems are difficult to define and even more difficult at times to solve, the deaf adult must look for other resources in their search for answers. They might look to others who have had similar problems or try to find the answer by trial-and-error methods.

The communication barrier again hinders the deaf adult in the resources that they have opportunities to access. Even access to simple resources that hearing individuals take for granted are major obstacles for the adult who is deaf. While hearing individuals can relate to others in the

community because of their language bond, deaf adults are still separated from society at large.

When the deaf participants described life in general, they used terms such as "struggle," "hard to understand," "overwhelming," and "tired of trying to understand." Therefore, it is not only the academic arena that causes difficulties for the deaf adult, but also real-life problems are a challenge. This difficulty carries over to the issue of obtaining employment. Many times the deaf adult may want to stay within the security of the home and draw Social Security monies rather than brave the world and face more rejection and misunderstandings in the workplace.

The limited number of accomplishments in the academic setting when they were young affects their self-esteem as they prepare for the world as an adult. The young woman who indicated, "When I look at myself in the mirror, I really don't think I am smart enough" was not only talking about academics. She was talking about life in general. She later talked about fears of getting married and being able to care for children. This struggle with low self-esteem directly relates to the struggles they have experienced in their learning. Many deaf adults have missed out on learning how to learn in various situations.

Learning How to Learn

The learning how to learn theory applies to adults who

are deaf. Since learning is a life-long process, it is never too late to learn how to learn. Most deaf children spend the majority of their school years trying to obtain a working vocabulary. While hearing children are learning words at an amazing speed through the radio, television, and overhearing conversations at home and in the community, children who are deaf have to be specifically taught each word or concept. At times this a laborious task that requires much effort and concentration especially if they are having to learn to lipread these new words as well as find out their meaning. The participants in this study who had a grasp of their ability to learn were very candid in their comments.

The learning how to learn theory is based upon the three sub-concepts of learners' needs, learning style, and training (Smith, 1982, p.16). The learners' needs actually represents what the person needs to know about learning itself. Even though some of the participants recognized that they were successful because of their ability to read and write and learn in various settings, some of the participants clearly did not understand why it was still so difficult for them to learn. Some had resigned to the fact that they just could not learn: "I am not smart enough."

That feeling of inadequacy may relate directly back to the lack of successes experienced as a child especially in

the academic settings. The learning how to learn theory stresses the importance of the basic skills of listening, reading, writing, and arithmetic in the learning process. The deaf adults are already at a disadvantage because they cannot hear. Their "listening" can only be connected to visual stimuli. In addition, their reading and writing skills are usually much lower than their hearing counterparts. Research indicates that even after graduating from high school, 3 out of 4 deaf individuals are unable to read and understand a newspaper (Dolnick, 1993, p. 40). However, the learning how to learn theory goes further than just the basic skills.

Smith (1982) feels that developing an awareness of self as a learner is important in a person's ability to learn. This awareness of self as a learner and recognizing one's learning style are major concepts of the learning how to learn theory (pp. 21-22). However, many deaf adults have not been able to address those issues in their learning process.

During the interviews, the participants were given the Assessing The Learning Strategies of AdultS (ATLAS) instrument through the use of American Sign Language. ATLAS is an easy to administer instrument that gives immediate feedback on the person's learning strategy. The participants were told into what learning group their

responses placed them, and then all three learning groups were described in detail. Each of the participants were interested in this information and did declare that they felt they belonged in their particular learning group. This further opened up dialogue with the participants about their learning experiences. Just the fact that a person is aware of how they learn can enhance their ability to learn in academic settings (Munday, 2202, p. 110). Metacognition, or the knowledge and control over how one learns would greatly benefit persons who are deaf as they approach a learning task. This could be accomplished through a better understanding of their learning strategies.

Learning Strategies

There was a total of 20 participants in this study and Navigators were heavily represented. There were 9 Navigators which represented 44.1% of the total. There were 5 Problem Solvers (27.8%) and 6 Engagers (28.1%). The large number of Navigators in the study is not surprising as Navigators are:

> Focused learners who chart a course for learning and follow it. They are conscientious, results-oriented high achievers who favor making logical connections, planning and organizing activities, and who rely heavily on the learning strategies of Planning, Attention, Identification and Critical Use of Resources, and Testing Assumptions. (Conti & Kolody, 1999, p. 9)

There were four Navigators in the unemployed group and

five Navigators in the employed group. It may have been imperative for these learners to become more focused in order to survive in their world of silence. They would naturally have to lean heavily on the techniques of planning and attention if they were to capture all of the needed information to learn. The identification and use of resources would come naturally as their resources may not be as plentiful as they would like.

As public schools started implementing the Education for All Handicapped Children Act (PL 94-142) of 1975, they inadvertently started shaping the way deaf children attack learning situations. The schools took on more of a behavioral approach to learning with the Individualized Educational Plan (I.E.P.). This behavioral approach, at times, leads to dealing with children as commodities. The I.E.P. or learning plan forces the deaf children into learners who take on the Navigators' characteristics of being more "focused learners who chart a course for learning and follow it" (Conti & Kolody, 1999, p. 9).

There were twice as many Engagers in the unemployed group (4) as in the employed group (2). Engagers are:

> Passionate learners who love to learn, learn with feeling, and learn best when they are actively engaged in a meaningful manner with the learning task. (Conti & Kolody, 1999, p. 13).

The Engagers desire an interaction or engagement with the

learning material, environment, and teacher. Having fun with or experiencing satisfaction with the learning activity is paramount to the Engagers. However, it may be difficult for many Engagers to be able to interact sufficiently with their environment or instructors due to the communication barrier.

The smallest learning group was the Problem Solvers (5). Problem Solvers are those learners who utilize critical thinking strategies. These learners test assumptions to generate alternatives to create additional learning options (Conti & Kolody, 1999, p. 12). There were two Problem Solvers in the unemployed group and three Problem Solvers in the employed group. When they were given the description of their particular learning group, they were especially curious and excited. All five of the Problem Solvers emphatically agreed that particular learning strategy fit them. In fact, they appeared to be happy to put a label on the particular way they approached learning situations.

In addition to the environmental influences that have impacted the deaf adults' learning, research has shown that internal factors may play a role. These internal factors were revealed through the participants' responses as an internal motivation to learn.

Internal Motivation

Knowles (1970) asserts that adults' motivation to learn is internal. This internal motivation appeared to carry the participants through difficult times as well as spur them on to succeed. Many times the participants would have a look of determination on their faces as they were talking about this internal drive. Other times their expressions indicated a more serene resolve that permeated their existence for being. One young lady wanted to chat after the camera was turned off. At that time, she indicated that she knew there was a purpose for her life. She called it a faith that her life as a deaf woman was meant to be, and she wanted to fulfill her destiny. Others expressed this internal motivation in various ways.

This internal motivation was not really linked to any of the other categories of comments from the participants. The participants did not link this motivation to their family of origin, what type of schools they attended, or even the onset of their deafness. This internal motivation is just a part of who they are just as their deafness is a part of their identity. Their identity was formed through various interactions with their environment as they were growing up. However, some of the deaf adults described specific incidents that transformed how they identified themselves.

Transformational Learning

Another area of adult learning that was captured in the dialogue of the participants in the study was transformational learning. Mezirow (1990) indicates that adults learn when they are challenged in their values and beliefs or the way life has always been. This transformational learning occurs with deaf adults as they are thrust into new arenas of awareness. When individuals who have never associated or interacted with other deaf persons have opportunities to make friends with other deaf adults, their lives are forever changed. They are able to look into a mirror and see the reflection of generations of others who have experienced the same struggles they have. A feeling of unity or solidarity occurs.

These transformational learning experiences were pervasive in all of the three learning strategy groups. In fact, all of the adult learning characteristics of self-directed learning, real-life learning, learning how to learn, and transformational learning were all clearly evident in all three learning strategy groups.

The problem for this study was conceptualized around the concepts related to two main areas. Those areas are Deaf community and Adult Learning. Conclusions and recommendations were drawn related to each of those two concept areas.

Deaf Community

Language

> Children should be given an opportunity to learn a language as early as possible after being diagnosed as deaf.
>
> In terms of employment, consistency of language instruction by the parents and the educational system improves the individuals chances of success.

Language is the medium for learning virtually everything that is known. Research has shown that the window of opportunity for acquiring a language is from birth to 5 or 6 years of age (Kalat, 1999, p. 301). However, many times for a child who is deaf, that time is spent just trying to figure out what is wrong with the child. Even if the child is diagnosed as being deaf, the parents are many times given misinformation or virtually no information about how to teach the child a language. The participants in the study were emphatic about the importance of being able to communicate at home, at school, and within the community.

All of the participants, except for the three who grew up in homes with deaf parents, struggled to communicate and learn at very early ages. Each of the other 17 participants described frustration, loneliness, and isolation even in their homes which is the very environments where they were supposed to be welcome at all times. These feelings of quiet desperation continued as they attended public school settings without the aid of communication. Even those who were privileged to learn a form of communication, either

through some lipreading training or sign language instruction, still did not have easy accessability to full communication and understanding.

Whichever form of communication or language the parents choose, the key is consistency. Those participants whose parents chose only to use speech and lipreading at home and at school and were consistent in their approach still were successful in some communication with their children. However, this form of communication did seem to be the most difficult to learn and the participants all agreed they were lonely and isolated even within the family system. This ability to communicate not only affected the participants' ability to learn but also influenced how they viewed themselves.

Self-Identity

> Deaf individuals benefit from being able to associate and interact with other deaf individuals even at an early age in order to develop a healthy self-identity.

Many of the participants expressed feelings of inadequacy and "not belonging" even within the family structure. In most cultures, the family unit is the means whereby the children learn the mores, values, and appropriate ways of behaving in society. However, when there is not adequate communication, the individuals have no clear cut avenue of learning the ways of the family and

community.

When everyone around them speaks and communicates freely but they cannot, the individuals who are deaf are further ostracized from the group. When others their age are forming bonds with family and peers through communication, their lack of communication is building walls and barriers. While others are learning who they are through overhearing family stories and discussions, individuals who are deaf are learning they are "different" and "do not belong." The participants themselves described these feelings of being misfits in society.

The comments of feeling left out and isolated at times permeated all of the interviews. It was not until the individuals were somehow allowed to meet or happened to meet other deaf individuals that they began to develop a more positive self-identity.

Erickson (1950, 1968) was one of the first theorists to recognize the importance of identity development. Other research indicates this identity development is a crucial component in the journey to becoming a productive adult (Berk, 1996, p. 584). These self-identities are difficult to develop when a person has no one with which to identify. Similarities of individuals with whom to identify is important (Kennedy, 1998, pp. 58-59). Therefore, it is important for persons who are deaf to have opportunities to

interact with others who are deaf.

> I have a young man in my class that came from a small town. He is hard of hearing, and he had very little language, and really no sign language, and his grandmother says he has no personality. How do you develop a personality with no friends! He had no sense of humor. But now, he is so funny. He is learning how to work in the whole system. That is not just me, but the Deaf world. (40-year-old, female, employed, Problem Solver)

As persons who are deaf start to identify with the larger group or culturally Deaf, they start to accept themselves as worthy human beings. They no longer feel like an outsider looking in, but they feel a part of a larger group. While some of the participants embraced the Deaf community after identifying with it, others chose to stay within the hearing community and only cross over into the Deaf community for socialization intermittently. It was this choice that appeared to be important. They had not been given the choice when they were younger. They were forced to be in the world their parents chose for them. Now, they feel more empowered and able to make that choice for themselves.

However, even after adults who are deaf have the opportunities to learn American Sign Language and make the choice of joining the Deaf community or not, their struggles do not end. Those learning struggles they encounter as children follow them into adulthood.

As adults who are deaf transition into adulthood, they are faced with many choices just as are the hearing adults. Both hearing and deaf adults are bombarded on a daily basis with new information and new problems that they must learn to solve. However, adults who are deaf is much more limited in their resources than their hearing counterparts. Both groups must draw from their past experiences as well as internal strength to learn what is needed in an ever-changing world.

Andragogy

> Adults who are deaf apply the standard adult learning principles to their lives as do the hearing population.

Knowles (1970), in his assumptions of adult learners, indicated there were areas in which adults differed from children in the way they learned. One of the areas adults differ from children is the vast array of experiences adults have on which to draw for future learning situations. This fits well with the person who is deaf. They have had many experiences, but not all have been positive. However, persons learn even through the negative and sometimes painful experiences. These painful experiences usually consist of times when persons who are deaf were alienated from others by the communication barrier. It is through these times that many of the deaf adults become self-directed in their learning.

Self-directed Learning

Deaf adults are self-directed learners and utilize this type of learning in their everyday lives as well as on the job.

Communication difficulties have stimulated deaf adults to develop into self-directed learners.

Self-directed learning is one of the major adult learning concepts that deaf adults utilize. Self-directed learning implies taking responsibility for one's learning. Adults who are deaf have not always had the optimum learning opportunities in the academic realm as their hearing counterparts. This is a natural occurrence due to the communication barrier. Therefore, in order to be successful in their learning, adults who are deaf must look to other learning alternatives. Self-directed learning is just a natural consequence of their experiences. While teacher-directed learning assumes that students are motivated by external rewards, self-directed learning assumes that motivation is internal (Knowles, 1975, p. 21).

Internal Motivation

Deaf adults are internally motivated both in the academic arena as well as in real-life situations.

Knowles (1975) indicates this internal motivation comes in the form of need for esteem, the urge to grow and achieve, the need to know something specific, the need to be curious, and the need to have satisfaction in accomplishment (p. 21). Many times adults who are deaf have had few

successes in their lives and this has affected their self-esteem (Reagan, 2002, p. 58). Therefore, by the time deaf individuals arrive at adulthood, they do have a great need for esteem and feelings of accomplishment. This internal motivation can be a powerful force as the adult who is deaf faces new learning situations.

The successes the deaf adults experience enhances their self-esteem and gives them more confidence in their learning abilities. However, the lack of previous successes hinders adults who are deaf by lowering their self-esteem. These lack of successes further indicate the adult who is deaf has failed to learn how to learn.

Learning How to Learn

> Persons who are deaf have missed out on the crucial learning how to learn skills.

As society has moved into a fast paced, ever-changing, world of technology, the information that adults learned in school is no longer sufficient to enable them to be successful in life. In the past, the purpose of education was to transmit what was known at that time (Knowles, 1975, p. 15). However, that is no longer the case. Therefore, "the main purpose of education must now be to develop the skills of inquiry" (p. 15). These skills are needed in order to learn in any situation that the adult who is deaf may find themselves.

Smith (1982) indicates that the basic skills of listening, reading, writing, and arithmetic are the cornerstones upon which all other knowledge must be built. However, for the adult who is deaf, they are already at a severe disadvantage. First, they cannot learn through listening due to their deafness. Second, their reading and writing skills are severely limited in most cases. Most of their academic career has been spent just trying to learn a language. The laborious work of learning each new word or concept takes many more hours of study for the deaf person than it does for the hearing person. As hearing individuals graduate from high school, they are usually ready for the plunge into the new learning activities of work and adulthood responsibilities. However, the person who is deaf may be just starting to learn who they are and possibly even starting to learn a new language.

The workforce expects to hire persons who may only need short-term training in order to produce effectively. However, the workforce does not know how to handle the deaf adult who comes to them lacking in so many skills. When faced with these new learning experiences on the job, the adults who are deaf must draw from their own unique ways of attacking the learning activity. However, the adults who are deaf may not have a clear understanding of how they go about attacking various learning activities.

Learning Strategies

Adults who are deaf utilize the same learning strategies as the hearing population.

Most people in our society know if they learn best visually, auditorily, or kinesthetically. However, looking at learning modalities in this way does not benefit the adults who are deaf. They already know they cannot learn auditorily, and so they just assume they would learn either visually or kinesthetically. This does not give the deaf adult much information on how to approach a learning situation. However, the ATLAS gives the deaf adult another way to look at their unique way of learning. In addition, just the action of completing the instrument causes the deaf adult to start looking at themselves as a learner in adulthood differently than when they were children. Even though they may have experienced few successes up until now, deaf adults are able to learn. It is beneficial for deaf adults to understand more clearly how they learn and to recognize they have unique ways of attacking a learning situation.

Adult learners have their own preferences in the way they approach life learning situations. Usually this is a result of their personality and what has worked for them in the past. Research in this area has focused on the "concept of self-directed learning and with how adults learn in a

variety of informal, real-life situations" (Conti, & Kolody, & Lockwood, 1997, p. 1). Adults learn in these real-life situations in their own unique ways. The adults utilized learning strategies which are:

> The techniques and skills that an individual elects to use in order to accomplish a specific learning task...Such strategies vary by individual and by learning objective. (Fellenz & Conti, 1989, pp. 7-8)

It is important for adult learners to be aware of their particular way of approaching learning situations. It is also important for adults to "develop awareness and understanding of self as a learner" (Smith, 1982, p. 21).

This understanding of self as a learner can be further described as metacognition or the "knowledge and control over one's own thinking and learning" (Conti & Kolody, 1999, p. 3). This process involves consciously analyzing, assessing, and managing the learning activities in which the adults are involved. In addition, it would be important for the adult learners to be aware of their strengths and weaknesses in order to maximize their strengths and compensate for their weaknesses (p. 3). "The learner who is conscious of his or her learning processes exercises more control over those processes and becomes a more effective learner" (Fellenz & Conti, 1989, p. 9). Research has shown that adults who are cognizant of their specific learning strategies make significant gains in their academic growth

(Munday, D., 2002; Munday, W., 2002).

As adults assume responsibility for their learning, there are three components that occur in the process. The adults must plan, monitor, and adjust as they move through their learning. Planning consists of activities such as overviewing and focusing on the main purpose of the learning activity. At this point, the adult learners would also want to be cognizant of their learning preferences or styles. While moving through the learning process, the adult learners would monitor or check their progress to make sure they are staying on task. Monitoring the learning process could also be accomplished through feedback from others. If the learning activity is not going according to the learners plan, then adjustments might have to be made in order to get back on task. This adjusting might also occur if the learning situations change (Conti & Kolody, 1999, p. 4).

Adult education research which focuses on real-life learning situations has grouped adult learners into three unique groups. These three groups are: Navigators, Problem Solvers, and Engagers. The profiles of these three groups are:

> The results of qualitative and quantitative research methods including cluster analysis, discriminant analysis, and analysis of variance conducted with the 15 learning strategies in SKILLS (Self-Knowledge Inventory of Lifelong Learning Strategies) and the cluster groupings. (Conti & Kolody, 1999, p. 9)

This research has been expanded to include other real-life learning situations such as Adult Learning on the Internet: Engaging the eBay Auction Process (Ghost Bear, 2001), Learning, Growing, and Aging: Lifelong Learners in the Academy of Senior Professionals in Bethany, Oklahoma (Lively, 2001), and Learning Strategy Preferences of High School Noncompleters (James, 2000). These and other various research studies have further validated the recognition of the three unique groups of learners.

Navigators are placed in their particular group due to their characteristics of being:

> Conscientious, results-oriented high achievers who favor making logical connections, planning and organizing activities, and who rely heavily on the learning strategies of Planning, Attention, Identification and Critical Use of Resources, and Testing Assumption. (Conti & Kolody, 1999, p. 9)

These focused learners usually like schedules, prefer learning environments which are free from distractions, and feel a need to know where to locate the best information. They will usually want the facts rather than other people's opinions (Conti & Kolody, 1999, pp. 9-10).

> At that time, I started having migraine headaches every Friday after the spelling test. I was a perfectionist. (37-year-old, employed, female, Navigator)

Problem Solvers are groups of learners who:

> Scored high in all three areas of Critical Thinking strategies which includes Testing Assumptions, Generating Alternatives, and

> Conditional Acceptance. (Conti & Kolody, 1999, p. 12)

Problem Solvers tend to generate alternatives and consider various solutions to a problem. However, at times this may lead to difficulty in decision making. These adult learners "rely heavily on human resources and prefer expert advice rather than referring to manuals" (p. 12). Problem Solvers are creative and love spontaneity. They want the space and flexibility to be able to learn at their own pace and in ways that is applicable to them (p. 13). Problem Solvers generate alternatives in their learning which tend to become stories. In this particular study, the Problem Solvers were wordy and tended to be the longest interviews of the study. The Problem Solvers had more variety of experiences in their learning than the other groups.

Engagers tend to be more emotionally involved with the learning process. This particular group of learners seek out:

> Learning activities that provide the greatest opportunity for engagement: the interaction and collaboration are major motivators for entering into the learning task. (Conti & Kolody, 1999, pp. 13-14)

Having fun and experiencing satisfaction in the learning process is the motivating force behind the learning of Engagers. However, Engagers also pursue learning activities that give them a better understanding of themselves and the

world in which they live. Mental images and visualization techniques are utilized in their learning process (pp. 14-15).

Even though the adult learners can be catagorized into the three groups of Navigators, Problem Solvers, and Engagers, it is important not to stereotype individuals. Individual differences will appear in each group. However, the commonalities within the groups are beneficial in helping the adult learners to recognize how they approach the learning process (Conti & Kolody, 1999, p. 16). Identifying their unique learning strategy enables the adult learners to understand more fully how they go about learning not only in a classroom setting but also in real-life situations.

The instrument, Assessing The Learning Strategies of AdultS (ATLAS), was developed in order to have a way to assess the particular learning strategy of adults. This instrument is easily administered and takes little time to complete. The adult learner can easily read and complete the instrument in approximately one to three minutes. Learners are able to determine their particular learning strategy immediately and is given a detailed description of their group.

In this particular study, the researcher signed the instructions to the participants utilizing American Sign

Language and speech, and the participants responded accordingly. The participants were informed of which learning strategy group they were categorized. Navigators, Problem Solvers, and Engagers were described in detail. At that time, the participants were asked if that seemed appropriate for their learning style. All of the participants agreed that it fit them very closely. ATLAS was not specifically designed to be used with the deaf population. However, even when interpreting the instrument into American Sign Language, the results were the same. Therefore, ATLAS could be successfully utilized in various adult education settings that deal with the deaf population.

The participants in the study separated out into the three learning strategy groups of Navigators, Engagers, and Problem Solvers. There has been many research studies completed utilizing the ATLAS. Most research bears out the probability that the general population would be relatively equal within all of the three learning strategy groups. However, in this particular study, there were nine Navigators which represented 44.1% of the total. The remainder consisted of five Problem Solvers (27.8%) and six Engagers (28.1%). The Navigators and Problem Solvers were distributed fairly evenly between the employed group of participants and the unemployed group. There were five Navigators in the employed group and four in the unemployed

group. There were three Problem Solvers in the employed group, and two Problem Solvers in the unemployed group. On the other hand, there was only two Engagers in the employed group and twice as many, four, in the unemployed group.

There may be various reasons for the large number of Navigators in the study. Even though a purposeful sample was selected, they were not chosen on the basis of their learning strategy. Since Navigators are focused learners who rely on planning and attention, it is feasible that adults who are deaf would fall into this group. Because of their deafness, they have had to pay close attention to what was going on around them in order to survive. In addition, Navigators' tendency to use resources as well as leaning heavily on planning and attention clearly fits with the natural process of how persons who are deaf would navigate through life. They have been conditioned through years of struggle to learn by using those strategies upon which Navigators rely heavily.

While genetics or nature comes into play with individuals' personalities and intelligence, genetics could also ultimately affect a person's learning strategy. However, just as nature and nurture both affect a person's behavior, personality, and intelligence, both may affect the development of a person's learning strategy.

Recommendation for Practice

Education of professionals regarding the importance of early intervention and language acquisition is imperative.

Education and support for parents of children who are deaf is necessary to ensure that families know and understand all of the language options and have opportunities to acquire the skills needed to help their children acquire a language as early as possible.

Deaf adults are needed in the community to act as mentors for the children who are deaf and as peer support for the parents of the children.

Community classes teaching American Sign Language (A.S.L) to adults who are deaf as well as family members need to be conducted by deaf adults who are fluent in A.S.L.

English as a second language (E.S.L.) classes as well as literacy tutoring should be offered by qualified individuals to the adults who are deaf and have limited reading and writing skills.

Staff development curriculum is needed to train the teachers of the deaf on the importance of the learning how to learn skills.

ATLAS could be used in public schools as well as other educational settings to help the person who is deaf have a better understanding of the learning strategy they use.

Exposure to various occupations should be made available to students who are deaf beginning at an early age.

Job shadowing of occupations should be made available to high school and junior high school students who are deaf.

On the job training or apprenticeship positions need to be offered to adults who are deaf in order to have hands on training in various occupations.

Vocational Rehabilitation Counselors need to be trained specifically in issues surrounding the adult learning of adults who are deaf.

Mental health professionals need to be trained in regard to the specific mental health needs of children as well as adults who are deaf.

Support groups need to be established in order to meet the emotional needs of children as well as adults who are deaf.

Individuals who are fluent in American Sign Language need to be recruited into the counseling field.

Much research has been conducted regarding the debate of oralism versus sign language with the deaf population. In addition, there is much support in both camps on which is a better education for children who are deaf--residential deaf schools or public school settings. However, little attention has been given to the learning needs of the adult who is deaf. Society as a whole has not fully addressed the problems surrounding the learning gaps of the deaf adults.

In 1966, the Adult Basic Education Act was passed in order to ensure basic literacy skills for Americans. In 1990, President George Bush signed into law the Americans with Disabilities Act. Both of these important pieces of Legislation were meant to help those individuals who had missed out on many of the educational opportunities that most Americans enjoy growing up. These laws also were meant to help all Americans have a fair playing field in the workforce. However, many of the adults who are deaf have not been helped by these laws. Literacy classes have not always been accessible to persons who are deaf because of

the added expense of hiring interpreters for the classes or hiring individuals to teach or tutor who have sufficient sign language skills. Hiring interpreters on the job is costly, and there is a great shortage of qualified interpreters especially in the rural communities. Therefore, the adults who are deaf find themselves still struggling to learn in real-world situations just as they did in the classroom when they were younger. Rather than suffering humiliation and embarrassment in the workplace, many choose to stay at home and receive Social Security benefits. This is costly to the American public in tax revenue and loss of human potential as well as costly to the deaf adult in esteem, happiness, and quality of life.

The debate over which mode of communication or language usage has gone on too long. Many children, adults, and families have suffered from misinformation given to them by well-meaning professionals. Universities that train professionals in the various fields that come in contact with children as they are diagnosed with deafness need to rethink their curriculum. Information should be added into their curriculum that addresses the importance of early language acquisition. They also need to help their students to understand that consistency is the key to helping children who are deaf learn a language.

When the Education for All Handicapped Children Act was

amended in 1986, the Federal legislation mandated early intervention for children with disabilities to include those infants and children from birth to 3-years of age. The previous act had only addressed the learning needs of children with disabilities from 3-years old and older. This legislation has done much to help children and families within the last decade. However, budget cuts and lack of skilled workers in the field of deafness has still crippled the efforts to reach all children who are deaf. Educating the community at large by seminars or even public service announcements on television could be helpful to get the information out to the appropriate families.

History has shown that it is when the people themselves become educated and empowered that change occurs. Great men and theorists such as Paulo Freire and Myles Horton have done much to educate those who have experienced the pain and struggle of oppression. These types of individuals could be characterized as radicals who "seek a world where each individual's worth is recognized and where his potentialities can be realized" (Conti, 1977, p. 36). This is what the Deaf-world needs to experience. The Deaf community needs adults who are willing, just as the participants in this study were, to open themselves up to the world and say "Enough!" Change can occur only when the culturally Deaf themselves are willing to take part in the

education of the children, parents, professionals, and society at large.

> Right now what the Oklahoma Deaf community needs is to learn advocacy. I have been an advocate all of my life, fighting with the teachers for speechreading and other services. I did a lot of that on my own. People need to appreciate the hard times to continue on and see changes. It helps to develop character. We do not need to be given everything. It is as if we are enabling people to become unsuccessful. (37-year-old, employed, female, Navigator)

Creating learning organizations within the Deaf community could foster societal change one deaf person at a time.

Individuals who are deaf need to be given opportunities to learn American Sign Language even in adulthood as well as given opportunities to interact with others in the Deaf community who can act as mentors and role models.

> Exposure to role models is important. You don't need to feel sorry for the deaf. Making them responsible and making them get out and get to work is good. I have seen parents that have a deaf child, and they feel sorry for them and just give them everything they want. They need to be taught responsibility, how to read, how to write, and how to work in the world to develop responsibility. (34-year-old, employed, male, Problem Solver)

Since many individuals who are deaf have never been given the opportunity to learn American Sign Language (A.S.L.), it would be beneficial if community classes could be taught. This would benefit not only the adult who is deaf but also would benefit families of individuals who are deaf. This could be accomplished through utilizing the deaf

adults themselves who are fluent in A.S.L. In turn, this would give opportunities for more interaction within the Deaf community. The community A.S.L. classes could be opened up to professionals, shopkeepers, counselors, and others within the community who may come in contact with the children or adults who are deaf.

Deaf adults who are fluent in American Sign Language but have limited English skills need to have opportunities to improve the basic skills of reading and writing. In his Learning How to Learn theory, Smith (1982), stressed the importance of the basic skills of listening, reading, writing, and arithmetic. In addition, having an understanding and awareness of self as a learner is important in the learning process. These basic skills of reading and writing need to be improved if the adults who are deaf wish to be successful in their life-long learning process. The lack of proficiency in these basic skills is one of the biggest reasons that adults who are deaf are unable, or at times unwilling, to participate in the workforce. The globalization of society as well as the fast changing technology advances, intimidates the person who is lacking in the basic skills of reading and writing. For years education was just transmitting what was known to others. However, now the purpose of education must be "to develop the skills of inquiry" (Knowles, 1975, p. 15).

These skills of inquiry are the basic learning how to learn skills.

Teachers are the first line of defense in the battle against illiteracy in our country. They need to be given more tools than just the normal education classes that are currently offered. It is imperative that teachers and teachers-in-training be given opportunities to understand and learn the skills needed to teach the children the concepts of metacognition or understanding how they learn. Many teachers know the importance of having individuals understand whether they learn visually, auditorily, or kinesthetically. However, these learning styles are not applicable to the individual who is deaf. They need to have a better understanding of how they uniquely attack learning situations.

It is important to understand how one approaches learning whether in the classroom or in real-life learning situations. The participants in this study were very interested in their particular learning strategy group. Through their body language, this researcher could see them musing over the information and nodding their heads in agreement as they were informed of their particular learning strategy grouping. It appeared to give them a better understanding of past experiences. The Navigators were able to see why it was so important for them to have their lists

and schedules. They also made comments on now they understood why they would be impatient with others as they would endeavor to solve a problem together. The Engagers would smile and comment on how now they understood why they would not even attempt certain learning situations if they could not see where it would be fun. However, the Problem Solvers were the most emphatic about the importance of this new information about their learning strategy group. The Problem Solvers indicated that this finally helped them understand or label the way they looked at learning. This awareness of their learning strategy should give the adults who are deaf more information upon which to draw as they approach new learning situations. Recent adult learning research shows that "adult students can realize a positive impact in their academic achievement if they know their learning strategy preferences" (Munday, 2002, p. 110). The learning strategy groups were one more way that the deaf adults could feel they "belonged" somewhere in a world where many times they felt isolated and alone.

This isolation of the deaf created many problems that the participants were willing to share. The level of pain experienced by the participants could be seen on their faces as their stories unfolded. Therefore, mental health professionals need to be aware of these problems and trained in how to deal with these problems. In order to meet the

mental health needs of the deaf population, professional counselors who are fluent in American Sign Language need to be trained. Since this specific training in American Sign Language is imperative, those individuals who are already fluent in American Sign Language could be recruited into the counseling field.

Recommendations for Further Research

Quantitative research needs to be conducted to further investigate the learning needs of deaf adults.

Qualitative and quantitative research needs to be conducted that further investigates the mental health needs of children who are deaf.

Qualitative and quantitative research needs to be conducted that further investigates the mental health needs of adults who are deaf.

Qualitative research needs to be conducted to further investigate characteristics of successfully employed adults who are deaf.

The 21st century looms before us with a need for a qualified workforce. Within that qualified workforce lies opportunities for personal growth. The Deaf community could offer the world a group of intelligent and compassionate human beings that could make great contributions. However, in order to take advantage of this wealth of talent, some changes need to be made. More research needs to be completed in the area of adult learning as it applies to the Deaf community. This research needs to encompass those various agencies that are dedicated to helping this

population, such as the educational system and Vocational Rehabilitation.

In addition, since deafness occurs for many during youth, the mental health community needs to conduct further research into the mental health needs of both children and adults who are deaf. The pain the deaf population has experienced and continues to experience needs to be addressed. There is a large group of people whose emotional as well as academic needs are not being met. However, the Deaf community itself is an important player.

Helen Keller once reflected upon her own life of being blind and deaf and stated, "Blindness cuts people off from things, but deafness cuts people off from people" (Dolnick, 1993, p. 37). This isolation from people can stifle the personal growth of some, but just as Helen Keller rose above her circumstances, so can the Deaf community.

The Water Pump Experience

> I met new people, walked all over the campus, and actually watched the game. I was probably the only person that weekend that watched the game. Wow! When I walked into the cafeteria at Gallaudet University, I saw these wonderful people. Their hands were moving at an incredible speed ... It was the "water pump experience". I finally got it. This is who I am. They are like me. I am Deaf! (40-year-old, female, employed, Problem Solver)

Carrie's eyes lit up like candles when she was sharing this Helen Keller like experience. Just as Helen Keller's

life would never be the same the moment she understood that a certain hand shape (W on the mouth) represented water, Carrie's life too would never be the same. This had been a life changing moment for her as she had finally seen others who were like her. She related to them. It was as if she had finally come home-come home to a world that she did not know even existed. The veil had been removed for a split second, and Carrie was experiencing the Deaf-world. However, the journey had been long, many obstacles had been encountered, and many mountains had been climbed. But, now, here she was. What will she do with this new found frontier? Will she embrace it and learn from it as Helen Keller had done or forget about it and go back into her isolation of living as a deaf woman in a hearing world? This study has shown that there is hope and courage within the human spirit. Even though the struggles may be difficult and the obstacles large, Carrie as well as a host of other Deaf Americans can find their potential to be employed and successful.

Final Commentary

This study has been a "water pump experience" for the researcher. This qualitative study gave "voice" to the deaf participants, and it is their voices that need to be clearly heard. This study began as a journey to find and to describe the perceptions of learning patterns among adults

who are deaf. However, along the way so much more was heard. The participants took control and changed the climate of the study. The depth of pain that was uncovered as their stories unfolded was incredible.

Both the employed adults and the unemployed adults had gone through painful experiences. However, the two groups described their pain differently. Even though the employed participants had experienced similar pain, they were able to process through the pain. They were able to move forward. However, those who were unemployed were still struggling to find where they "fit" in the world. The unemployed participants who were still in the processing stage of their pain, had downcast expressions, and closed body language. At times, the unemployed deaf adults were almost tentative and hesitant in their comments. However, the employed participants were more open in their body language and signed with more confidence.

The unemployed group of individuals was more definitive into which cultural group they belonged. While eight of the unemployed participants chose to live and interact mainly within the Deaf community, the other two were forced to live within the hearing world. However, this was not by choice but because they felt they could not "break into" the Deaf community. The eight unemployed participants chose primarily to use American Sign Language while the other two

primarily used lipreading and speech. On the other hand, the employed participants were able to transition from American Sign Language to lipreading and some were comfortable using their voices. The employed participants knew they had a choice of living within the Deaf community or the hearing world. They were confident in their ability to choose when they interacted in the hearing world and when they interacted in the Deaf world. The ability to choose was the important issue. They had more control in their lives because of their ability to choose which world to enter. This control was linked with confidence.

The employed participants felt accepted in their world. They "fit" in their jobs, their families, and society. The employed deaf adults felt they were contributing to the society. The unemployed deaf adults were still crying for help. These cries need to be heard.

It has been known in the research community for quite some time that most deaf individuals who graduate from a residential deaf school read at the fourth or fifth grade level (Garretson, 1995, p. 84). Therefore, many deaf adults who have a high school diploma still have difficulty reading a newspaper. For most hearing children in elementary school the emphasis in the first three grades is learning to read, but after that it shifts to reading to learn. However, many deaf individuals are "stuck" in that fourth or fifth grade

reading level. They have difficulty learning many other things because of their delayed reading skills. They are stymied in their ability to learn how to learn. Until this lack of reading literacy among deaf adults is addressed, the workforce and the world will miss out on many talented and intelligent people who just happen to be deaf.

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Oklahoma State University
Institutional Review Board

Protocol Expires: 3/16/2004

Date: Thursday, March 27, 2003 IRB Application No ED0360

Proposal Title: CHARACTERISTICS AND LEARNING STRATEGIES OF DEAF ADULTS

Principal Investigator(s):

Linda Massey
3800 Hereford Hills
McAlester, OK 74501

Gary Conti
206 Willard
Stillwater, OK 74078

Reviewed and Processed as: Expedited (Spec Pop)

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson, Chair
Institutional Review Board

VITA (2)

Linda Longcrier Massey

Candidate for the Degree of

Doctor of Education

Thesis: THE POWER OF VOICE: THE LEARNING PATTERNS OF DEAF ADULTS

Major Field: Occupational and Adult Education

Biographical:

Education:

Graduated from Checotah High School, in Checotah, Oklahoma; received Bachelor of Arts degree in Liberal Arts from California State University, Turlock, California in May, 1985; received Master of Science degree in Vocational Rehabilitation Counseling from University of California, Sacramento, California in May, 1988. Completed requirements for the Doctor of Education degree with a major in Occupational and Adult Education at Oklahoma State University, Stillwater, Oklahoma, in December, 2003.

Experience:

Employed by East Central University as Assistant Professor in the Human Resources Department.

Professional Membership:

National Rehabilitation Association
Oklahoma Rehabilitation Association
National Registered Interpreters for the Deaf
Oklahoma Registered Interpreters for the Deaf